

AMERICAN BEE JOURNAL

The Oldest Bee Journal in the English Language

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American Bee Journal

Vol. LXXVIII—No. 5

Hamilton, Illinois, May, 1938

Monthly, \$1.00 a year

Restrictions on Moving Bees

THE modern motor truck has made it possible to move bees long distances quickly and easily. Such movement provides new complications for the officials charged with the enforcement of disease laws since it is hard to keep in touch with arrivals and departures of trucks from distant points.

Unless more care is used to comply with all regulations there is danger that rules sufficiently stringent to stop all movements of bees may be adopted in some cases. In a few cases the escape of live bees has annoyed people on public highways and caused some complaint. In other cases the finding of disease in newly imported outfits has led to difficulty.

We would urge every beekeeper who uses the highways to move to new locations to use all possible precaution to avoid annoyance to the public and also to cooperate fully with the inspection service of the locality to which he goes. In such cases an ounce of prevention is certainly worth a pound of cure.

To our way of thinking the industry is already suffering from restrictions which have failed to bring the expected results while greatly hampering legitimate activity. More restrictions are bound to come unless more care is used to avoid annoyances and every such restriction serves as a brake on the freedom of trade, revival of which is so greatly needed just now.

—ABJ—

South for Bees

BUYERS of package bees are doing a lot of figuring in an effort to reduce costs. So many northern beemen have gone south in an effort to produce their own packages that it raises a serious question as to whether it pays to do so.

In discussing the matter with several who have tried it, one comes to the conclusion that in most cases there has been a large expenditure of hard work in exchange for a trip. A few of the very large outfits who need a thousand or more packages seem to be able to show a profit but the fellow who wants only two or three hundred or less has spent as much as would have been necessary to buy packages from an established shipper.

It resolves itself into a question of expediency rather than profit in a large number of cases. In one case the beekeeper has his time free for other things and spends no more in buying package bees than he would to take his own bees south to make increase. In the other case he spends as much in making his increase but has the change that comes from visiting a new region and the experience of working under strange conditions. Most of those who have

In 1917 there appeared a book by C. P. Dadant for beginners in beekeeping, entitled "First Lessons in Beekeeping." It was written to supersede an older book of the same name, first written by a former editor of American Bee Journal, T. G. Newman, and later revised by Mr. Dadant. Since 1917 it has run through numerous editions and has been revised to some extent from time to time.

Something of the popularity of the book may be judged by the fact that twenty-three thousand copies have been sold. Changing conditions have brought so many changes to the beekeeping industry that it was necessary that the book again be rewritten.

Because of failing health, C. P. Dadant was unequal to the task and he left it to his son, Maurice G. Dadant, and his grandson, James C. Dadant, to bring the book up-to-date. The work was completed and the book was in the press at the time of his recent death.

In this edition of "First Lessons in Beekeeping" we find an entirely new book. While original material of fundamental importance has been retained, it is rewritten and each illustration is new. It is printed on a larger size page with large clear type which makes it easy to read.

The novice with bees will find himself led by easy stages from the consideration of "Beekeeping as an Occupation" through a discussion of the bees, hives, and necessary equipment to an understanding of the management of the apiary. It is designed to enable the beginner to understand the necessary care of the bees and to help him to success from humble beginnings. It is unlike any book on bees previously published.

The price is \$1.00 per copy, cloth bound, postpaid, from American Bee Journal, Hamilton, Illinois. F. C. P.

Yakima, Wash.—Four-H Bee clubs are to be organized in this section under the sponsorship of the Yakima Beekeepers' Association. Considerable interest has been expressed in such clubs, and the group voted recently to aid in organizing them.

I. L. Neill,
Wash.

"Roadside Marketing of Honey in Delaware" is the title of Extension Circular No. 32 from the University of Delaware by John M. Amos, Assistant Extension Specialist in Entomology. It gives a survey of the honey marketing along the roadsides. Copies may be obtained by addressing the University of Delaware, Newark, Delaware.

To summarize, it says, "The demand for honey at roadside markets in Delaware greatly exceeds the supply produced locally. Beekeepers are urged to increase the size of their apiaries and adopt approved methods to secure more honey, so that the surplus will be sufficient to meet the demand in the state. Extracted honey is the most commonly found. Comb is too frequently leaky and infested with ants in the summer. The prices are fairly consistent for honey throughout the state."

The Bureau of Entomology and Plant Quarantine has recently concluded a memorandum of understanding with the Wisconsin Agricultural Experiment Station which will provide facilities at Madison, Wisconsin, for work on bee culture, particularly those phases of the work in the north central states concerned with problems on superseding and package bees. In addition to studies on these special problems, the Bureau will cooperate with the Wisconsin Agricultural Experiment Station in the study of beekeeping problems peculiar to the state and also cooperate with University in planning various work on beekeeping including teaching. Under this arrangement the Station will provide facilities so the Bureau can make use of the package bees and queens, hives and other equipment offered through the agencies of the American Honey Producers' League. The American Honey Producers' League, through a special committee of which Mr. W. E. Anderson, State Entomologist, Baton Rouge, La., is chairman, offered to obtain without cost to the Government upwards to 500 colonies of package bees and necessary apiary equipment to be used in connection with investigations on beekeeping problems, particularly those related to package bees and queens.

Dr. C. L. Farrar, of the Inter-mountain Bee Culture Laboratory at Laramie, Wyoming, has been transferred to Madison, Wisconsin to be in charge of the work of the Bureau of Entomology and Plant Quarantine at this new laboratory. He will also be responsible for carrying out the cooperative arrangements with the Wisconsin Agricultural Experiment Station and the College of Agriculture of the University of Wisconsin.

made such an experiment have been content to buy their packages after one or two seasons.

The big operator who needs a thousand or more packages has enough at stake to justify considerable expense and under proper conditions is able to report a margin of profit. Some of them, however, are depriving themselves of a much needed period of rest each season and will pay a high price in physical disability or shorter life.

On the whole, judging from the many reports which have come to us, it seems safe to say that the average beekeeper will find it safer as well as less expensive to buy his bees from an established shipper.

—ABJ—

A Long Lived Jingle

ABOUT fifteen years ago M. G. Dadant received a letter from a New Mexico beekeeper with a jingle:

I eat my beans with honey—

I've done it all my life.

It makes the beans taste funny,

But it keeps them on the knife.

Whether it was original with our New Mexico friend we do not know but it was published in the American Bee Journal at that time.

Since then it has come back to us on frequent occasions with credit to first one and then another publication. The latest copied by Gleanings from the November Christian Century is the same old rhyme except that "beans" has been changed to "peas".

Once anything appears in print it may have a long life if it has a public appeal. It is impossible to measure the final influence of any printed word.

—ABJ—

The Poison Menace

LETTERS continue to come to us telling of losses of bees from the application of spray poison. The subject has frequently been mentioned in this magazine but beekeepers have so much at stake that they are in no position to ignore the menace.

Of late there is so much agitation on the part of magazines, medical journals and the press generally that the public must take notice. Thus far the beekeeper has had great difficulty in finding protection for his bees but the interest of the public has reached a point which indicates that changes must be made in the commonly accepted methods of spreading poison without regard to public safety.

In some localities the sentiment has become aroused to the point where there is talk of organizing a "Consumer's Anti-Poison League." Fruit growers, gardeners and producers of other food articles which require protection against insects are thus placed in a difficult position. The insect menace is difficult to combat and they know no other way of effective control. On the other hand the resentment of consumers who fear the effect of the poison is likely to greatly disturb their markets.

The loss of honeybees and also of livestock in localities where

the aeroplane is used to spread the dust may result in legal restrictions which will bar that method of spraying. In the case of the death of cattle or other animals in their own pastures from poison which drifted beyond the boundaries of the orchards or gardens, the grower appears to be personally liable for the injury.

There is so much difficulty in securing proof as to the source of the injury that few beekeepers have been able to recover damages for the loss of their bees. In most cases they have sought new and safer pastures rather than fight.

While the problem still remains, the beeman finds encouragement in the manifestation of interest on the part of the general public.

—ABJ—

Sixty Years Ago

A review of the early issues of this magazine brings forcibly to mind the great changes which have taken place within a short period of time. In 1878 appear discussions of some subjects which might be taken from the present. Other subjects seem ancient, and have little relation to present day activities.

In looking over the volume for that year one learns that honey was retailing in New York at 25 and 30 cents per pound not so great a difference from the present retail price. Comb honey section boxes of the type now in use had not become common and much honey went to market in five pound boxes which were filled by the bees and later covered with a glass top.

Beekeepers were agitating a petition to Congress for permission to admit queen bees to the mails and serious attention was given to ways and means of preventing adulteration of honey. Twenty articles on the subject of adulteration appeared in the one volume.

The giant bee of India (*Apis dorsata*) was attracting much attention and it was thought that this large bee might be worthy of introduction. Cyprians were also much discussed with eight articles about them during the year.

Beekeepers in that day gave far more attention to bee pasturage than they do now, if we are to judge by the number of articles which appeared concerning about forty different kinds of plants. Now only a few show special interest in honey plants, then many beekeepers had something to say on the subject.

The smoker was just then in the process of development and pictures were shown of such implements as were made by Quinby, Bingham and A. I. Root, the three men who contributed most to this useful tool.

—ABJ—

Hubam Clover in the Orange Groves

HUBAM clover is coming into favor as a cover crop in the citrus groves of the lower Rio Grande Valley of Texas. It comes into bloom in late winter in that area and offers good bee pasture at a critical season of the year. Hubam has demonstrated its value over a great expanse of country from the northern plains of Western Canada to the Mexican border. Few forage plants have succeeded under such diverse conditions and it is quite possible that it may prove of value to farmers and beekeepers in many places where it is not yet known.

No doubt you have seen the Weather Bureau's reports on southwestern Iowa. We were marked 75 per cent short in moisture, and it is true and has been worse since.

However, conditions are not as black as they look, and the season's prospects look good to me. And this is why: Last fall pastures near here went into winter with a pretty good mat of white clover and a peculiar condition prevailed all winter. The total precipitation was light but we had a number of light snows, each melting before the next fell.

We had six sleet storms, light ones, each melting soon. We had much foggy and misty weather. All this combined to keep the surface of the ground almost continuously moist, and a lifesaver for white clover. Two small pastures I have examined show the plants in very fine condition. So I think white clover prospects the best since 1934.

E. M. Cole,
Iowa.

The report of the Iowa State Apiarist for 1937 has recently appeared. It is the nineteenth report for the present state apiarist, F. B. Paddock, and the twenty-sixth for the office.

As usual, the report includes the papers from the last convention of Iowa beekeepers and some miscellaneous matter. It is a book of 110 pages and may well be added to the library of anyone interested in beekeeping.

More than forty pages are devoted to the activities of the office of state apiarist and some of the papers included are of more than passing interest. Of special interest is the report by Dr. O. W. Park of the comparison of the races of bees at the Iowa experiment Station.

Copies are mailed on request. Those wishing to secure copies should write to F. B. Paddock, State Apiarist, Ames, Iowa.

A tragedy ended the meeting of the Rock River Valley, Illinois Beekeepers' Association at Oregon, on Sunday, March 20, when C. W. Duerrstein, of Guilford, who was addressing the group of beekeepers, dropped dead from heart failure. Mr. Beach and myself were the first to reach Duerrstein's side. We caught him just before he reached the floor.

Mr. Duerrstein was born in Guilford, Illinois, January 16, 1874. He was a blacksmith, operated a farm with a large apiary and was a deputy state inspector for many years.

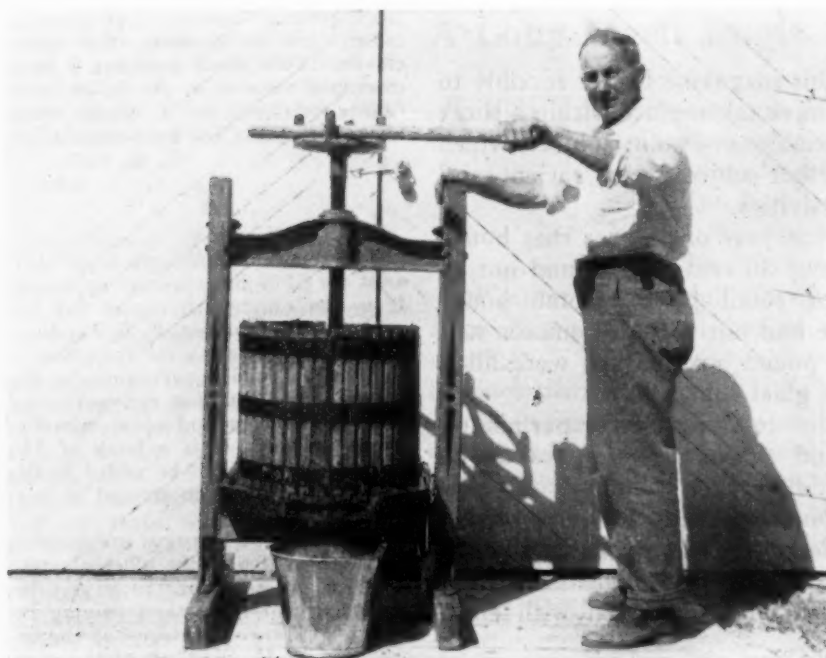
In 1902 he married Miss Anna Knautz of Galena. He is survived by his widow and five daughters.

R. M. Gober,
Illinois

A New Way to Handle Cappings and Capping Honey

By C. H. Gilbert,
Wyoming.

Fig. 1—Cider press for cappings.



THE efficient disposal of cappings and capping honey has always presented a problem to the large producers of honey. Cappings accumulate very rapidly during a heavy honeyflow and must be disposed of at frequent intervals. The process often interferes with, and sometimes stops, extraction. A large amount of honey is retained in the cappings and should be removed without the use of heat.

Some beekeepers have partially solved the problem by the use of a capping drier, while others use the radial extractor for that purpose.

Cappings taken from an extractor retain a large percentage of honey which, if processed in a capping melter, may be darkened considerably. If the cappings are placed directly into a wax barrel, all the honey will be lost.

In order to handle cappings without interfering with extraction and salvage a high percentage of first-class honey, Mr. Garard, an enterprising beekeeper of Sheridan, Wyo-

ming, has devised a very unique method. Mr. Garard uses a power uncapper and removes a heavy capping. The cappings fall into perforated baskets and drain in the usual manner. At the end of the run, or when sufficient cappings have accumulated, they are dumped into the cedar press shown in Figure I. When the press is full, pressure is applied and the wax is compressed into a round cake, shown in Figure II. The wax is left in the press a short time, and the screw clamp is tightened occasionally. Honey forced from the wax drains into a pail and is poured directly into the settling tank.

The wax is compressed so tightly the cakes are stored in compact stacks until convenient to melt them.

I asked Mr. Garard for some figures on a regular extraction, thinking other beekeepers might be interested in the method. In response to the request he very kindly supplied the following data.

The figures are based on a run of 50 full depth 9 frame supers. They

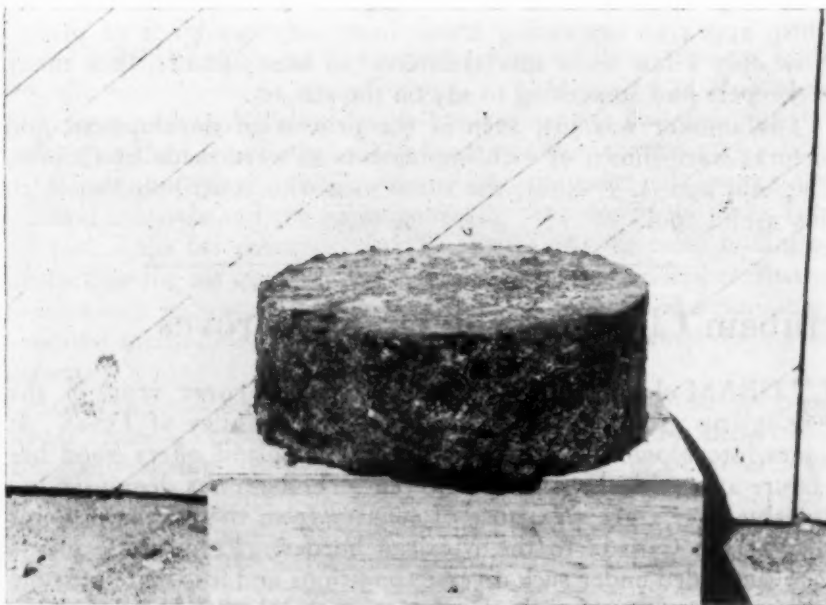


Fig. 2—Round cake of cappings from press.

were taken late in the season and 90 per cent of the combs were completely capped.

Gross weight of supers	3,397 lbs.
Weight of empty supers and combs	1,035 lbs.
Weight of cappings and honey removed	2,362 lbs.
Weight of cappings after draining and just before pressing	305 1/2 lbs.
Weight of honey removed in the press	191 1/2 lbs.

Weight of compressed cappings (2 cakes)	114 lbs.
Weight of honey removed in capping melter	48 lbs.
Weight of wax from wax press	46 lbs.
Weight of debris in wax press	6 lbs.
Weight of honey lost during the process (in wax barrel)	14 lbs.

Some advantages of this method are:

1. A large percentage of the honey is removed in first-class condition.

2. Cappings can be handled without interfering with extraction.

3. Compressed wax cakes can be stored compactly until convenient to melt them.

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Moving to Outyards

By Hy. W. Sanders,

Manitoba.

IN a previous article our experience with package bees were outlined, and the story of management may perhaps be carried forward a step with some account of the annual move to outyards. As mentioned before, I share a home yard with my old friend and neighbor, Will L. Pink, and between the two of us we have from 1000 to 1100 colonies to move out to the farms where we operate outyards. These vary a good deal in size. In some good locations we have had as many as 80 or 100 colonies. In others where there does not seem to be so much clover we may have as few as 25. Perhaps the lot would average around 40 to 50, and we arrange our loads so as to take a full yard if possible in one trip. The move takes place during the last few days of May or the first few days of June.

We have made some efforts to start the packages in outyards at the first of May, because with increase from year to year we felt that our home yard was getting overcrowded. However the country roads are often very bad at this time, and there is such a press of work in starting the packages that the course of least resistance is to start them all at home. Then too, some of our best locations are on the prairie, without shelter from the cold north and west winds, while the home yard is well sheltered, and also is close to a good early source of nectar in the willows that line the banks of the river and some sloughs within a mile. Possibly also the yard is not so badly overcrowded as we have been inclined to think when one takes into account that the package decreases in numbers for the first three weeks, until the first young bees hatch out. After this time the colony will build up fast, and it is just at this low point that we try to get the bees moved.

Until two years ago we had not hit upon this idea, and we used to wait until the middle of June, when the first bloom from sweet clover appears. But that made the move a big job. The weather often warmed up about that time so that we had to use full screens to cover the tops of the hives. That meant that if we would get a load ready in the afternoon, screening the hives, we could not move them until daylight next morning, as we would have to bring the screens home with us for another load. By the time we would get the bees loaded, make the trip and unload, the day would be well advanced and the bees would boil out when released, making the whole job a thoroughly unpleasant one.

As our outfits were increasing we were more and more concerned with the overcrowding of the home yard, and determined to move earlier. As we did so we found that the colonies were very much easier to move for the simple reason that thousands of the bees that used to boil out so furiously were still in the cells as pupae. Furthermore we found that a couple or three weeks earlier the days, and especially the evenings and mornings, were much cooler. These two factors brought the idea that maybe we need not screen the hives but could use a simple entrance closer, so long as the bees were not short of ventilation.

It would take too long to describe all the devices that we tried. The one we use now, and which seems to be giving perfect results, is simply a piece of screen, 4 or 5 inches wide and as long as the hive entrance. This is folded lengthways and tucked into the hive, and to make the corners bee tight, we crumple small pieces of newspaper and put them inside the folded screen on each side. To contract the hive entrance during

the early part of the season we use a stick tacked on to the outside. It is a matter of only a moment to take off the stick, and tuck in the wire, using a small screwdriver or the hive tool. The stick is laid on the cover as a sign to the loaders that the hive is ready.

We move in the evenings as soon as the bees have finished flying for the day. One man goes ahead closing the hives and two others pick up the hives as fast as they are prepared and carry them to the truck, which is of course brought as near as possible. As they load the bees they throw the entrance sticks into a box and these are then stored for next season. It takes but a short time to get 40 to 60 colonies loaded and we are at the outyard within a couple of hours. The bees are set in place and we then go quickly through the yard pulling out the screens. This can be done with one motion of the hand, the few adhering bees knocked off and the screens nested one within the other for easier carrying. Before the truck leaves, the screens are counted to see that no hive is accidentally left closed. As it is dark the bees do not leave their hives, and by the time next morning comes they have quieted down and are ready for normal flight.

Often we can make several trips in a single evening, and still be in bed before midnight. We have moved thousands of colonies with this simple method and when we read of truckloads being loaded with open entrances by virtue of heavy smoking, and when we think of the miseries of the old moves with full screens, we feel that we have hit upon something that is a real value. Of course if the bees were stronger, or if the weather warmer it might not work, but taking the colonies just as they are at the

(Please turn to page 230)



(Upper picture) Experiment Station Apiary at Kapuskasing; a quiet day, late in August clear and cool; most colonies down to one super.

(Lower picture) In February, snowshoes are useful, even in the apiary.



Some Notes Regarding Beekeeping in Northern Ontario

By Smith Ballantyne,

Superintendent, Experimental Station for Northern Ontario.

For the sake of convenient reference, rather than trying to follow all phases throughout the year at once, we have grouped, under the separate headings, the various findings.

Beekeeping Seasons

The first general flight usually occurs late in April though in some years it is delayed until May. Good flying weather is often limited to ten or fewer days during May and the unfavorable weather often extends into June. However, the bees seem to be very energetic and active, bringing in pollen and fresh nectar in large quantities during the flying hours.

First pollen is produced by black or tag alder before the bees start flying, willow commences before the alder stops and the end of the willow season is overlapped by the start of dandelions. Dandelions are nearly as plentiful in their season as snow is in its time. They are followed by a number of other wild flowers, shrubs, etc.

As flying time is so limited, ample stores must be kept in the hive.

A brief and partial examination for stores may be made early in May, weather permitting, but thorough examinations are best delayed until the latter end of that month. The first week in May seems to be the best time to install queenright packages north of the height-of-land. An earlier date is better along the southern border of Northern Ontario and possibly at the western end.

Colonies, both wintered and package, build up very quickly and need to be watched closely for room during the latter part of May and early June. All colonies are taken from their cases soon after June 15th.

The main honeyflow commences about July 1st from alsike clover and ends from fireweed late in August though on rare occasions it extends into the first week of September.

The swarming season or the build-

KAPUSKASING is situated on the river of the same name. It is about 500 miles on the bee line north of the city of Detroit and 150 miles south of James Bay, 700 miles east of Winnipeg and 680 miles west of Montreal by the most direct railway line.

The Dominion Experimental Station located at the outskirts of Kapuskasing serves the 330,000 square mile territory known as Northern Ontario. It comprises the 11 districts of Muskoka, Parry Sound, Nipissing, Sudbury, Manitoulin Island, (in Lake Huron), Algoma, Thunder Bay, Rainy River, Kenora, Temiskaming and Cochrane. The inhabited area is approximately 700 miles from east to west and over 300 miles from north to south.

It is roughly 50 miles north of the northern line of the rock belt in which are the mining cities of Timmins, Kirkland Lake, Noranda, Cobalt, etc. The height of land is roughly 100 miles to the south, thus this district lies on the north slope and is exposed to the cold winds from the icy waters of Hudson and James Bays. Owing to this exposure a change of wind (and they are frequent) may cause the temperature to rise or fall sharply in a very few hours. Variations of 20 degrees F. within 12 hours are usual and of 30 to 40 degrees are not uncommon during the summer and up to 70 degrees in winter.

The native forest is principally spruce with areas of some species of pine (as Tourist Junior says "the land of Christmas trees") with smaller ridges of poplar, balm of Gilead and birch. Along the southern

fringe are some areas of sugar maple and other hard-woods.

Under natural conditions the clay is covered with a layer of broken down organic matter, and over this is a matting of moss up to two feet thick. Labrador tea grows over large areas on the moss.

Air temperatures fluctuate widely and quickly during both winter and summer. Summer nights are cool and the days sometimes hot. Winters are long and cold. The Kapuskasing River usually freezes over early in November, and does not shed its coat of ice until early May. The first part of the summer, that is, May, June and July, is usually brighter and drier than the next three months.

Snow starts to settle in November. By Christmas, it may be eighteen inches deep and by mid-March four feet or more in the bush where it does not drift. The last of the winter snow in the apiary melts during May.

This extensive area naturally includes a variation in soils and possibly enough difference in weather and atmospheric conditions to affect the nectar secretion to quite an extent. However, the greater part of the arable land is a heavy clay underlain with an impervious subsoil or rock.

Bees have been kept at this station since 1919. During that time many phases of apiculture have been studied to a greater or less extent. This includes: Overwintered colonies, 2 and 3-lb. packages, daily gain or loss of colonies on scales, honeyflows, sources of pollen, swarming season, methods of wintering, dates of various operations, queen-rearing, etc.

ing of queen cells seldom starts before July first except in overcrowded or neglected colonies and only on rare occasions are any built as late as August first. Here again it is only overcrowded colonies or colonies whose earlier attempts to swarm were frustrated, that build queen cells so late.

By the end of August the days are short and usually so cool that the bees are not very active except in unusually good seasons. For this reason, it is best to have all but one super removed by the last week of August and the last one removed during the first week of September if it can be done without danger of the bees starving before winter feeding is commenced. That is a real danger because the brood chambers are usually so full of brood right up to the end of the flow that they contain very little honey.

The colonies are usually given some

the end of September and in some cases later. It is necessary to watch the colonies for supplies between the time of super removal and feeding. Delay winter feeding as long as possible to allow brood to emerge and then rush the feeding being sure to finish it not later than the first few days of October. Nearly all colonies are wintered in a single 10-frame Langstroth hive. These are fed to weigh between 80 and 85 pounds without the cover or until the outer side of the outer combs are being filled.

Flying days during September are generally few and far between, and during October often nil. Bees for cellar wintering may well be put there about mid-October, but the cellar must be well ventilated, dark and probably cooler especially toward the end of winter, than in places where winters are shorter.

Bees are usually taken from the

cellar soon after April 20th even though snow may have to be shovelled from the summer stand. They are given additional protection until mid-June.

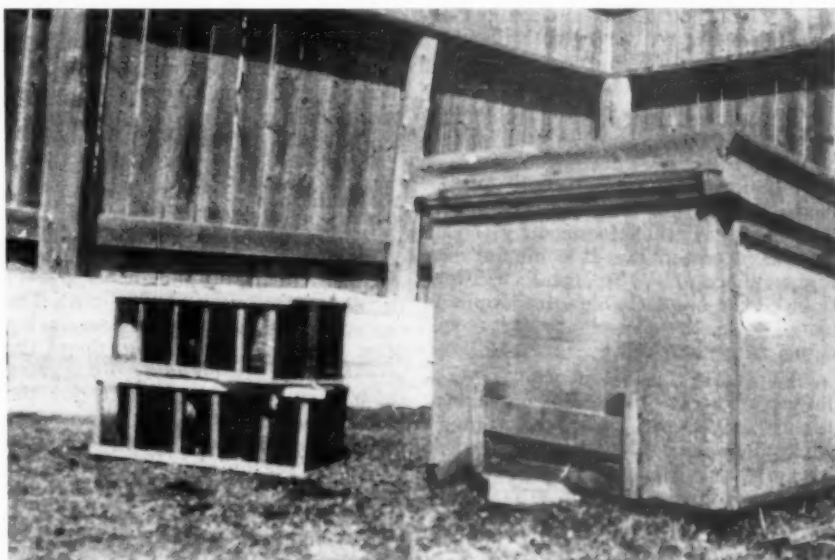
Pollen and Honey Sources

There is ample pollen available to the bees whenever the weather is suitable for flying, from the time of the first spring flight to the last autumn one. Black or tag alder and aspen are the first sources, then the willow which is overlapped by marsh marigold, the plentiful dandelion, other wild flowers, shrubs and small fruits. Then, of course, come the usual summer supplies from various kinds of grasses, clovers and other wild and cultivated plants, followed by the fireweed, goldenrod and most of the other plants which are common in southern Ontario and the northeastern states. Very little buckwheat is grown throughout the greater part of Northern Ontario.

Bees find a considerable quantity of nectar or honeydew on their first spring flight about May 1st, much of which has quite a strong flavor of spruce. Flying time is so limited at this season that no surplus is stored. A number of minor plants come into bloom during May. Dandelions are probably the first major source of nectar and sometimes quite a surplus is stored from them though we have never taken any from the hives.

Dandelions, in common with other plants, such as the various kinds of clovers, seem to produce more flowers or blooms to the plant than do the same kinds growing farther south.

The dandelion flow is overlapped or closely followed by Labrador tea, (an uncertain source) a few kinds of



Left, Package bees in front of snow drift, May 3rd, the bees may sing "Carry me back to old Virginia." Below, a corner of the queen rearing yard.

additional protection against the weather about mid-September. Those to be wintered outside are put into the cases then and some packing material (planer shavings) at the sides. Those to be put into the cellar are either wrapped with paper or put into a small case until late October. Native bush being principally evergreen, forest leaves are not available for practical packing.

Owing mostly to the comparative price of honey and sugar the bees are given a two to one sugar syrup for winter. The feeding should be finished before the end of the first week of October. The end of September is better as by then bees of weak or medium colonies may have become so sluggish through inability to keep the hive warm that they do not take the syrup down readily nor cap it if it is taken down.

One difficulty here is that much of the comb contains brood until nearly



wild plums, cherries, raspberries, wild rose, etc., and cultivated fruits, mostly small sorts such as currants and strawberries.

White Dutch clover commences to bloom about June 15th but there is not much of that here yet, though it is spreading. The wild vetch, (*Vicia augustifolia*) is a limited source which bees work very actively. The bees obtain the nectar through a hole cut at the base of the floret evidently by some other insect. There are large areas of Labrador tea in bloom about this time though as a honey plant it appears erratic and uncertain, depending upon the season.

The main flow commences about July 1st from alsike clover. This plant is a great favorite in the hay fields. It also seeds itself with the readiness of an unwanted weed everywhere, growing freely, wintering well and blooming most profusely. Alfalfa and sweet clover commence to bloom early in July and also flower very freely. These two plants are grown extensively in some districts of Northern Ontario.

Fireweed or willow herb commences around July 25th and, as is well known, is a valuable plant. There are still large areas of it in most localities and apparently the farther north it is the longer it continues to grow after the fire. The statement that it continues to bloom until killed by frost is not correct except in the case of a new stand. A new stand growing up after a fire in the spring or the previous autumn which commences to bloom late and then may continue until killed by frost but during the second and subsequent years it commences to bloom earlier in the season and finishes and goes to seed long before frost. The end of this flow generally marks the end of the honeyflow of that season.

Goldenrod is becoming quite plentiful in most localities but there is little or no honey collected from it, probably because it is overruled by fireweed.

During some seasons the bees work industriously on second crop of red clover. This may be because the rapidly shortening day, low temperature or some other phenomena cause the florets to be short enough to allow bees to reach the nectar or it may be that the florets are normal in size but are so full of nectar that the bees are able to reach at least some of it.

Excepting basswood, buckwheat and the fireweed our major honey plants are much the same as in southern Ontario but the season is shorter thus crowding the flows closer together.

Honey Crop—1929-1937.

The 9-year average honey yield per wintered colony at this station is

173.7 pounds of extracted honey. The summer just past proved to be a poor one, the average yield being about 65 pounds. The best year in the period was 1933 with an average yield of 298 pounds. Farmers and other part time beekeepers have good yields averaging up to three hundred pounds per colony plus a considerable increase in colonies by artificial division.

A colony on scales will frequently show a 24-hour gain of from 15 to 20 or more pounds. We had a gain of over 100 pounds in one week. In a five-year test with package bees the 2-lb. size yielded an average of 145 pounds each. For details regarding packages see under that heading.

For practical purposes it may be said that there is one main flow commencing about July 1st and ending late in August. All of the honey is white thus relieving the beekeeper of the necessity of keeping separate the honey from different sources. The honey here is extracted all together without regard to source or quality. The resulting product grades as No. 1, white (Canada). Supers are often left with the bees throughout the whole season.

Honey usually retails at 60 or 65 cents for a 5-lb. pail, gross weight. The honey is much favored by those who have tasted it. It commands a higher price on the local market than clover honeys which are shipped in. The local markets are far from being fully supplied.

The average date of the largest daily gain made by colonies on scales during the last 15 years is August 4th. (See first table below).

The earliest date being July 19 in the year 1925 and also in 1935 and the latest date was September 6.

Package Bees

A number of tests with packages of Italian bees have been tried here.

The first week in May seems to be the best time to have them arrive. This is about the time that a wintered colony having two pounds of bees would start brood rearing. It is also very early in the season here. There was no early supersedure of queens which may or may not be because the bees were installed and able to start activities at the natural beginning.

The packages are given extra protection in the form of a light case or by wrapping until mid-June. They are not entirely self supporting until early June. We either feed a sugar syrup or give them combs of capped honey. (See table below).

The first group was installed on full sheets of foundation and fed one-half to one pint of sugar syrup three or four times a week until they had sufficient surplus or were self-supporting, around June 1st.

The second and third groups were installed on drawn combs containing from 10 to 12 pounds of capped honey.

Strengthening weak colonies with queenless packages usually increase honey production enough to pay a profit over costs of the packages if the queen is young and in good condition.

Manipulations

Double brood chambers, either shallow or standard, are used on most colonies during the summer except in the case of very weak ones. The top stories are added any time during May or June, depending upon the strength of the colony. By having them in place early enough for the bees to incorporate them as a part of the brood chamber before the swarming season commences the first queen cells have always been built along the bottom bars of the top brood chamber. When making the periodic examinations for signs of swarming, we merely tip the top

(Please turn to page 231)

Monthly Gain or Loss in Weight of Colony on Scales

9 Yr. Aver.	Minus 2.5	Plus 12.7	Plus 112.5	Plus 84.7	Minus 1.7
	May	June	July	Aug.	Sept.

Honey Production By Packages

Size of Package	Packages Purchased	Queens	Accepted	Queens Superseded Before Main Honeyflow	Used for Honey Production	Average Honey Yield
	No.	No.	%	No.		
2-lb. on fdt.	19	19	100	0	19	111.3
2-lb. on comb	19	19	100	0	19	145.0
3-lb. on comb	19	19	100	0	19	162.0
Total pkgs.	57	57		0	57	
Period—5 years.						

Better Prices For Honey

By L. E. Sawyer,

California.

WHETHER you are a beekeeper, a doctor, a salesman, a honey bottler or a honey buyer, you want to secure the highest possible price for your product, or your service. Most everyone has a different problem, but the ultimate object—to secure higher prices—is the same.

At a recent beekeepers' meeting, the subject of "Honey Marketing" was discussed, and we might add that this subject has been discussed hundreds of times at different conventions and meetings. It was suggested at this meeting that the beekeepers form small cooperatives so as to secure low-cost warehousing and enable them to secure loans on their honey and market it in a more intelligent manner, thereby getting higher prices.

As dealers and shippers of honey, we think that small cooperatives, properly managed for the interests of the beekeepers, and not formed for the selfish aims of some promoter, would be of benefit; however, we want to state that there is a very important matter that should be given immediate attention by the beekeepers, because it has affected prices more than anything else we can think of during the past few years.

Every beekeeper should make an effort to see that in the future, not only they but their neighbors produce **a well-cured, clean, and heavy-bodied honey, packed in new cases and cans.** This would be a step in the right direction to secure a better price for their products.

The most successful beekeeper is the one who is carefully trained and who produces a well-cured, clean, heavy-bodied honey, and like almost all other products, the best in anything usually receives a higher award.

Some producers, in their anxiety and some in pure carelessness, rush the extracting of the honey before it is sufficiently ripened in order to

get it on the market at the earliest possible moment. They put this "green" honey in the tank and draw it off before it is properly settled. Sometimes, they do not even tank it—they run it directly from their extractors to the 5-gallon cans. Results are: thin honey, that may show fermentation later; dirty honey, on account of the sediment; and these producers we classify as enemies to the honey industry.

We have heard careful honey producers say: "Why should I be careful in my production methods, and stand the cost to do so, when some of my neighbor producers are careless; yet, get the same price for their honey?" We have to admit there is some justice in their statements, but only in a few instances. If all beekeepers produced the same thin, dirty grade of honey, it would not be long before the market would be demoralized and there would be no interest at all shown in honey, so that prices would be lower than they are at the present time. The careless producer is hurting the market and driving down the price on careful producers. The producers of improperly cured, dirty honey are in the minority; so it is up to the careful producers to preach to the careless ones to put up a clean product. Every beekeeper should look at his product as though he were the purchaser and should ask himself: "Would I buy this for use in my own home if I were not producing it?"

Honey should never be canned until it is in such condition that it can be poured from 5-gallon cans into a jar or can, ready for table use. Properly prepared honey, uniformly clean and packed in new cans and cases, will stimulate the demand for honey, and bring about better prices; whereas thin, dirty honey, packed in second-hand containers, only bears down the market and discourages users of honey so that they do not care to repeat their purchases, and seek other products which come to them uniformly clean and graded.

If the beekeepers will keep this in mind when it comes to the next producing time, and use every effort to see that not only their own products, but also their neighbors' products are

put up as they should be, it would be a step in the right direction and materially assist all of us in securing better prices.

No matter how good a cooperative might be formed, no matter how long the honey is held, even though the interest charges are small, the fact is, that if you do not have a clean, well-cured honey, packed in clean, new containers, prices are not going to improve and you are bearing down on the market and discouraging the buyers and packers in their use of one of the best commodities that is sold.

As dealers and shippers we have had some very sorry experiences not only from the result of dirty honey, packed in second-hand cans and cases, but with the thin honey. We have just received a communication from a buyer who purchased in the past from four to eight carloads a year. His last car of honey was bought during September, 1937. Now that he is getting into the lot, he has found considerable of it that is fermented; some of it so badly fermented that the seams on the cans are splitting, and the honey is leaking all over the place. He informs us that this is not his first experience and he is so discouraged over the proposition that he is going to use as little honey in his products as he possibly can in the future. This is only one instance and it is similar to others that have brought about a lack of demand for honey among buyers, as they hesitate to purchase honey that may spoil, as well as all the trouble and difficulty experienced.

Our ultimate object is to secure higher prices for honey so that we can pay beekeepers higher prices for their product. Our success depends entirely upon the success of the beekeepers, and we are vitally interested in this proposition. Therefore, let us all use every effort from now on to produce a well-cured, clean, heavy-bodied honey packed in new containers, and it will not be long before the trade will realize that when they purchase honey they are going to get a product that is entirely satisfactory and this will lead to greater consumption and naturally be reflected in better prices.



Wild cherry in blossom on the Chiltern Hills.

English Beekeeping And Honey Plants

By R. O. B. Manley,

England.

FROM Thames side at the village of Benson to the highest point of the Chiltern Hills near Henley is the country covered by the author's apiaries. It is a good locality for honey plants, white clover, wide areas of sainfoin, charlock, willow herb, wild thyme and marjoram.

It is a very beautiful country too. There can be few more charming sights than a fine April day on the Chilterns where the bare beech woods which crown the hills show the delicate tracery of their branches against a blue sky, and the massed blossoms of the wild cherry appear like white clouds hanging on the edges of the woods while here and there a dark yew tree serves as a foil to set off their soft beauty.

Later on, when the leaves of the beech trees unfurl and the hawthorn comes out, the roads through the woods are fairy tunnels of transcendent loveliness. In June, they are passages through deep green shade, cool on a hot day beyond belief. In autumn, the Chilterns become a place of color. The trees bear leaves of every imaginable tint from green to

deep red, and in winter when the frosts and winds have stripped the boughs, there is still a grandure appropriate to the season inseparable from a great mass of large trees

standing on high ground, leafless and still, waiting for the resurrection of spring.

In May, miles and miles of unkept hedge rows blaze white with

Apiary of Modified Dandant hives in a Chiltern orchard, wrapped in "sisal-kraft" paper.



An English apiary. The hive on the right is a tree trunk.

hawthorn and fields of crimson clover and suckling clover show red and yellow carpets on the hillsides. In June, sainfoin paints great patches of land a pretty pink shade and these sainfoin fields are all aroar with honeybees for no plant attracts them more strongly. The land gleams yellow, now, with charlock, that noxious weed so good a friend to the beekeeper and such an enemy to the grain grower.

In certain valleys among the hills are large beds of willow herb or fireweed, sometimes extending for hundreds of acres, forming a valuable source of honey in July and August. As a thing of beauty, these half-cleared, undulating woodlands are covered with masses of fireweed in full bloom presenting a spectacle that once seen will never be forgotten.

Such is this district in fine weather.

Unfortunately, we have too little of sunshine and much of our potential honey producing power is minimized, but still we carry on and manage to produce much honey of first-rate quality, a blend of white clover, fireweed, sainfoin and charlock.

In this locality you are on historic ground. The hamlet where this is written is called Crowmarsh Battle. In the old days villages were called after the names of the lords of the manors, and there are three different Crowmarshes; Crowmarsh Gifford, Preston Crowmarsh and Crowmarsh Battle, representing several manor lordships in early days. This place was a manor belonging to the great Abbey of Battle near Hastings, founded after the famous battle when the Saxon kingdom went down before William, 870 years ago.

Nearby is the old town of Wallingford on the site of one of the principal

Willow-herb in a cleared wood on the Chilterns.



An apiary of Modified Dadant hives on the Chilterns.

fords across the Thames. There you may still see the remains of the Roman camp which guarded the ford during the Roman occupation. A few miles up stream where the Thames and Thame rivers come together stands Dorchester, once an important Roman town but now a quiet English country village dominated by the Abbey. Here again is the remnant of a great Roman camp and across the river stands the isolated twin hills, each crowned by a great clump of large beech trees, known as the Sinodun Hills or Wittenham clumps. On their summit, which commands the valley of the Thames for miles, is one of the strongest of the Roman forts. Great dikes surround the central portion of the hill top and are all that remain of what must have been a scene of great activity seventeen hundred years ago.

Leaving the river and climbing the spur of the Chilterns, we are soon among the chalk hills. Most of the cultivated land is open and arable, quite unfenced. Here in a large orchard is my first apiary of fifty

colonies in Modified Dadant hives. It is somewhat exposed, but the trees break the force of the wind and the bees nearly always winter well. From it, the bees can reach all kinds of clover, charlock, sainfoin and fireweed. Weather permitting, they are able to store honey rapidly in the season.

Close by is a pre-historic barrow or burial mound, and a few hundred yards up the hill we come onto a part of the Icknield Way, one of the Ancient British Roads of England, extending in a well marked condition from Bury St. Edmunds to Bath and probably originally reaching the east coast. It has been maintained as a modern road in part, but most of it is merely a grass covered track, winding away between hedges or banks, then disappearing beneath a ploughed field only to reappear further on.

It is thrilling to stand on this ghost of a once great thoroughfare and call up in imagination the scenes of long ago when our ancestors journeyed up and down, perhaps three thousand

years ago, and try to picture what manner of men they were. Before the Romans came, probably before there were any Romans to come, this highway was in existence. The Roman Empire is a memory now, but people still walk this road.

Two more apiaries of mine are within a mile or so of the Icknield Way, one on each side of it. At an old gravel pit near the village of Brighwell Baldwin are about forty colonies in Dadant hives, well sheltered and within reach of all the local honey plants except fireweed; the other in a hollow of the hills near their highest point and surrounded by many acres of rough pasture and other land bearing the principal nectar supplying plants. It consists of about seventy colonies, half in Dadant and half in smaller hives, holding eleven frames, 16 by 10 inches, which have been in use many years.

Passing over the hills, we reach the village of Nettlebed, over the track of the invading Saxons as they poured into the country to exterminate the civilized population of Romanized Britons with a savage cruelty seldom practised by any other nation. So thoroughly did these forefathers of ours carry out the work of destruction, and so ruthlessly did they ply fire and sword that scarcely a vestige of the civilization they found remains except foundations, mosaic floors, coins and such hidden things.

Below Nettlebed lies a valley among the hills where woods were cut during the war and where fireweed now abounds, and at the outskirts of these woods is another apiary of Dadant hives, about forty in number. No sainfoin is reached from here, but there is plenty of white clover, and the great fireweed beds more than compensate for it. Here in this dry valley hundreds of feet above sea level, the slopes of the hills are covered with wild thyme,

while marjoram is thick in the hollows. Blackberries are abundant too, and in a good season of suitable weather heavy crops have been gathered.

English beekeeping is carried on under much greater climatic difficulties than in the United States. We cannot produce the great crops you hope for. The majority of our beekeepers are hobbyists with a few colonies, yet some of us are more seriously engaged in the industry. At least one English beekeeper has over a thousand colonies, and many have from one to two or three hundred. Practically all of them manage on

American lines and probably net as much as American apiaries. We have a better market and so make more on a smaller crop.

Our beekeepers have been greatly hindered by the teaching of wrong methods and this has delayed the progress in British beekeeping. Since the introduction of American methods and equipment, beekeeping has gone forward in spite of the terrible handicap of Acarine disease with which we had to contend with for many years.

At present, the business of supplying the innumerable hobbyist putters with nuclei, stocks, swarms,

queens and complicated equipment is much more profitable than honey production so those of us who work for honey alone are likely to be a small and select body of men for some time to come.

Honey yields also cannot be obtained without considerable good weather during the period of bloom of nectar yielding plants. In nearly thirty years of beekeeping, I can remember periods of over twenty days of continuous honeyflow only on three occasions. Usually a week at a time is as much as we have, and our poor seasons are much more frequent than our good ones.

—ABJ—

Straining, Settling and Clarifying Honey

By E. L. Sechrist,

Tahiti.

THE United States Standard Grades require that honey for table use, viz: Fancy Grade, must be as clean as if it were strained through standard silk bolting cloth of 86 meshes per inch, and that honey to be sold to bottlers, viz: No. 1 grade, be at least as clean as if strained through bolting cloth of 23 meshes per inch.

The freedom from foreign materials required for Fancy Grade is easily secured in any good extracting plant if honey is handled carefully and strained through cheesecloth or permitted to settle until clear. Care must be taken, however, to prevent waste matter which has risen to the top of storage tanks from passing into cans as they are being filled. Almost the same precautions are necessary when working for No. 1 grade honey, but it will be ready for canning more quickly.

Honey of good flavor, well settled or strained, does not need to be otherwise clarified. I see no reason why good honey should have its distinctive slight opacity and other natural characteristics removed, nor why, until all good honey that can readily be produced is being sold at a fair price for table use, any low grade honey which now goes into manufacture should be made into a clear, sparkling, light colored product to be sold in competition with the good table honeys which

beekeepers already have enough difficulty in selling at a profit.

Far better would it be to use every endeavor to promote the sale of natural honeys in crystallized as well as liquid form, than to resort to unnecessary and expensive filtering processes which are, as yet, of questionable value.

Use of Sump.

As honey flows from the extractor it is convenient to have it run into a separator tank or "sump" where it is roughly strained and from which it may run by gravity or may be pumped. Such a tank may be of any size, but one 10 inches deep, a foot wide, and two feet long is convenient. It should have a partition about 10 inches from one end extending from the bottom to within about two inches of the top of the tank. In this end is placed a square or round basket of window screen or one-eighth inch mesh wire cloth, which may be formed roughly into shape and supported by two pieces of wood attached to the upper edges. The partition causes this part of the tank to remain full of honey, preventing the screen from being clogged quickly. This partition should be removable, so that it may be raised when the box is to be drained or the strainer emptied. An outlet pipe of large size should be provided from the low point of the other end of

the box when the gravity system is being used; or a honey pump may be attached to the same point. This sump is conveniently located in the floor, just under the honey gate of the extractor, where it is always in sight of the operator.

The honey may flow from this sump directly into storage tanks but it is preferable to run it, first, through a separating tank of good size which blends the honey and separates the smaller waste which passes through the sump, as the screen in the sump must be coarse enough to let even cold, heavy honey flow through it readily. This screen may be $\frac{1}{8}$ inch or as large as $\frac{1}{4}$ inch, the size depending on local conditions.

Separator Tanks.

Although honey is often taken directly from the extractor sump, or even from the extractor to the storage tank, it is preferable to run it through a separator tank in which is placed a partition extending from the top of the tank to within about an inch of the bottom, so as to cause the honey to pass under this partition. It is important that the outlet

Honey Getting

SECTION II

Part XI

from the tank be large: 2 by 4 inches is a good size—because a small outlet slows up the flow of honey and may result in the tank overflowing.

This outlet should be placed at about two-thirds the height of the tank, at the end opposite to where the honey enters. This separator tank must be sufficiently large for the honey to remain in it long enough for most of the wax and other waste, not separated out by the sump, to rise to the top of the first compartment where it may be skimmed off occasionally. An outlet is provided at the lowest point of the separator tank so that it may be entirely drained when necessary, usually at the end of a day's run.

Another type of separator tank consists of a cylindrical tank with a smaller cylinder inside of it which extends within an inch of the bottom. This smaller cylinder may be notched at the bottom and fastened to the bottom of the larger cylinder. The honey flows into the central cylinder, runs out at its bottom, and is drawn off from about two-thirds the height of the outer cylinder, as in a square or oblong tank. Both styles are equally good.

Bag and Box Type Strainers.

If honey is to be strained, two styles of strainers can be recommended; (1) the bag and (2) the box types. Both are probably equally good, but the box type can be used where there is too little space above the tank to permit of lifting out the bag type of strainer. There is also (3) a heated type of box strainer which is very satisfactory.

(1) The bag strainer is simply a cheesecloth bag, sometimes of double thickness if the honey is warm and thin enough to run easily through two thicknesses of cloth. The yard-wide cloth is sewed into a bag as deep as the tank in which it is to be used, and it may be tied around the opening which brings the honey into the tank. Used in this way, the bag strainer prevents honey falling unimpeded from the top of a tank to the honey already in the tank, a procedure which, let it be repeated, incorporates many air bubbles in the honey. This formation of air bubbles by honey falling a foot or more into the honey below, as from a pipe, or after passing through a strainer cloth tied over the top of a tank, needs to be mentioned again and again: it is one of the most common and troublesome sources of "cloudy" honey. Honey should always come into a tank, through a riser from the bottom of the tank, or through a hose or a cheesecloth bag, or a baffle of some kind should be used which will cause the honey to flow smoothly down the side of the tank so that no bubbles are formed as it falls.

The tank in which the straining bag is used may be an ordinary storage tank three to six feet deep, but is

preferably a separator tank as just described, the cheesecloth strainer bag being placed in the first compartment. Care should be taken to place the bag so that it will not be drawn against the outlet from the tank in which it is used, thereby closing the outlet; it may be hung in a position where it cannot reach the outlet or it may be kept away from it by means of a wooden frame or wire mesh or perforated metal cylinder.

Because the tank in which the strainer bag is used is always maintained two-thirds or more full of honey during a day's run, the sides of the bag, and not primarily the bottom, are used for straining and do not soon become clogged since much of the waste rises to the top of the honey within the bag and does not reach the cheesecloth sides until the bag is raised to be drained, or until the tank is drained at the end of the day.

Any form of cheesecloth strainer which depends for its straining value upon having the honey moved downward through the cloth at the bottom of the strainer is sure to clog up in a short time, because all the particles of waste are drawn down into the meshes of the cloth. The bag type, with its principal straining surfaces on the vertical sides of the bag, works for a long period because most of the waste rises and remains on the surface of the honey within the bag instead of clogging the strainer's sides. Such a bag should work well during a whole day. At night, the tank may be drained and a clean bag used in the morning.

Bags may be changed, however, at any time the straining goes too slowly. It can be done readily if a pulley is placed at the ceiling above the tank. Then a cord can be tied around the top of the bag and the clogged bag drawn up for draining. If the tank is on the lower floor of a two-story building, an opening may be cut through the floor and a box a foot or so in height placed around it, covered by a trap door. Then no dirt can fall down into the tank and no one will step into it when the door is lifted to draw up the strainer. Or, if this is not practicable, there is sufficient room in the tank so that the clogged bag can be drawn to one side and a new bag put into operation in its place. Both bags can then be emptied next morning after the honey has drained out during the night.

Honey will strain readily at a temperature of about 100 degrees F. and when the honey being extracted is at this temperature any heating apparatus can be omitted and the strainer bag hung directly in the separator or storage tank as described.

(2) The Box Strainer also meets with general approval and is much used where but little space is avail-

able above the tank for handling and removing a cheesecloth bag. It should be about the size of a hive body and, in fact, is often made by nailing a sheet of galvanized iron on the bottom of one. The inlet to the box is at the top, at one end, and the outlet is about half-way up the height of the other end. The box is thus always at least half-full of honey, causing bits of wax and other waste to float on top and not clog up that portion of the vertical screen which does the straining and which is below the surface of the honey in the strainer box.

On the inside of this box are nailed (or soldered if the box is of metal) a number of vertical strips forming grooves or channels in which screens may be placed. It is well to use at least two sizes of mesh screens in this box—one to catch the coarsest stuff and the other of fine brass mesh. Several of these screens should be provided and they should have strong metal frames. When beginning work, a coarse screen is placed in the groove nearest the inlet, followed by one or more fine screens. When these begin to be clogged and the honey passes through slowly, a new, clean, screen should be placed in the next slot following the clogged screen, and the clogged one removed for cleaning. This process may be repeated whenever necessary. If two fine screens are in use at the same time, overflowing of the first screen may occur if it becomes clogged, but the honey will continue to flow through the clean second screen and the first one may be removed at any convenient time. The screens reach within about an inch of the top of the box while the outlet is a few inches lower. Therefore, if honey does flow over a clogged screen, it merely drops into the space between it and the next screen and the work goes on as before so that no foreign material is carried over into the tank. This strainer is as nearly automatic as a strainer well can be. If it is placed in a position where the operator cannot see it readily, a float and a warning bell may be arranged to give warning of any overflow. An outlet, which may be merely a hole with a cork in it, is provided at the low point of the box so that it may be drained at the end of day and the screens cleaned and replaced in the grooves nearest the inlet.

(3) A hot-water-jacketed straining box serves for heating honey as well as for straining and may be heated either by steam or by an oil stove placed beneath it. It may be a box about 16x24 inches by 10 inches deep. On projecting brackets or shelves about 2 inches above the bottom rest two screens which fit the box closely so that no honey passes down except through the screens. The upper screen is of coarse mesh

and the lower one of fine mesh wire cloth, separated by about an inch, the upper one catching all the coarser stuff. From the bottom of this box will be a pipe outlet with elbows so that, with the elbows turned up, the box will be nearly full, thus keeping the screens under 6 to 8 inches of honey and preventing them from becoming clogged quickly. Such a heated strainer should handle the honey for an entire day. The elbow, at night, should be turned down so that all the honey will drain out. In the morning the screens may be cleansed and replaced. The honey, as it comes from the box, should be about 90 degrees F. by the thermometer, and certainly never more than 100 degrees as it goes into the storage tank. Or it may go first into a separator tank where any fine wax and foam may rise to the top.

Centrifugal Strainers, although they will strain honey rapidly cannot be recommended. Cold and thick honey will clog them as with any other form of bag strainer. Honey at 90 degrees will strain rapidly through a centrifugal strainer, although more particles of wax will pass through, being carried through by centrifugal force, than when a similar cheesecloth bag is suspended within a tank or separator can. The principal point in favor of the bag and box type strainers just described,

which is that most of the wax rises to the top of the honey while the straining surface is below the surface where it does not become clogged readily, is lost in the centrifugal strainer, where the bag is constantly exposed to all the waste and foreign matter which is drawn into or through the meshes of the cloth. Because the bag of the centrifugal strainer has a large surface and because the honey is forced through it, it does continue to operate a long time. Its worst fault, however, is that it is responsible for churning a great amount of air into the honey, causing many of those fine bubbles which cannot be removed.

Settling Honey. A considerable amount of honey is produced and canned without being strained at all, merely being allowed to settle in storage tanks. It is always well, however, to use a Separator Tank as already described, as the first tank in the battery of several tanks which are connected and used as described later, in the section devoted to plans of construction and equipment of honey houses.

During this process of settling, if the honey is not too heavy in body or too cold, wax and other waste will rise to the top if given sufficient time, and may be skimmed off. Honey at a temperature of 90 degrees F. will soon settle clear.

Properly settled honey will be more free from foreign material than honey strained through cheesecloth and not settled. A fairly clean honey is usually secured if warm honey settles 24 hours to 48 hours although a longer time may be necessary. Plenty of storage room should be provided so that honey may settle at least 48 hours before being canned, but care should be taken that the honey does not remain in the tanks long enough to begin to crystallize.

Portable Extracting Outfits. A portable extracting outfit is usually built on a four-wheeled trailer which is hauled from one apiary to another by the truck which transports the empty and filled cans; by a truck which carries a large tank in which the honey from a day's work is taken to the central plant; or, as in some cases where apiaries are a long distance from where the owner lives, the portable may be moved by a truck or team furnished by some nearby rancher who also hauls the cases of honey to the nearest shipping point.

Such an outfit may be small and compact, yet very convenient if due consideration is given to the same principles suggested as necessary in the usual extracting room, viz: conservation of space and convenient arrangement of apparatus. This will be fully considered in a later section.

—ABJ—



(1) Only the brood combs remain after the bear has gone.

This is the bear season. At least it is if the letters that come to us from beekeepers who have bear trouble are any indication. The accompanying pictures and the following paragraphs will give the reader some idea of the depredations beekeepers in the bear-inhabited areas are having to sustain.

— o —

IN this great forest country the bear is the most serious enemy the beekeepers have to contend with and

the losses caused from the ravages of this seemingly always starving animal are very large. Every beekeeper is a bear hunter and is well equipped with bear dogs and good guns. He is compelled to stay on the job almost daily. Here the bears do not hibernate except during February and March. The mother bears are

A collection of experiences with an apiary depredator who fortunately exists only in a relatively limited number of localities. Besides the damage he does, his very presence would not be conducive to one's peace of mind.

back in the swamps nourishing the cubs while the males are out ravaging. When the mother with her young finally emerges from the swamps the ravaging is much worse, which is in April, May, and June.

Many really thrilling bear stories can be related by the swamp and forest beekeepers. Bears are really

fond of honey and it is their object of prey when they are foraging. It will be noticed (I) that the brood is hardly touched, while the frames of honey are well eaten away. Naturally, the bears may destroy the brood nest as they go about their work, but, although a small percentage of the brood may be consumed, they never eat it as they do the honey.

One of the illustrations (II) shows a honey tree bear which has been killed by a beekeeper. The hole in the bear's side tells that a heavy load of buckshot penetrated his body. The swollen, protruding tongue tells the story of his honey robbing two nights previous. It is swollen beyond the capacity of his mouth, it seems, yet in spite of this he was taking his usual meal of sweet.

When the bear can no longer endure the stings of the furious bees, he quietly retreats to the edge of the apiary, his fur full of bees. He rolls and tumbles in the undergrowth, rubbing his limbs on the grass, mashing and dislodging the bees until but a few remain alive. Then he sits down (it seems in deep meditation whether to renew the attack or quietly to retreat). If his ravishing appetite is almost appeased, he will almost always retreat. J. J. Wilder,

— o — Georgia.

I am sending you a snapshot (III) of a four hundred pound bear which was caught stealing honey. After a twenty minute battle he was killed by the owner of the apiary with a rifle. All this happened during early November, 1937, between 6:00 and 6:30 P. M. The bear totally ruined one hive, which had been fed for winter, and he tipped over two other hives evidently intending to destroy them, also. An examination this spring of these two colonies will show what damage was done to them.



Above—(II) The Georgia marauder. Below—(III) The four hundred pound Wisconsin honey thief.

Never before have our apiaries been molested by bears. However, reports from this vicinity have been that more bears were seen in this country last fall than at any time before and this means we shall have to be on the watch this coming season.

We were very fortunate in finding the bear before he had had time to do much damage to our apiary.

Joseph Garre,
Wisconsin.

— o —

F. L. Huggins, is a North Carolina beekeeper who has had his share of bear trouble. It is apiaries like this one (IV) that suffer most from



Left—(IV) North Carolina apiary and (right) (V) the bear which will no longer disturb it.



attacks by bears. Naturally when the crop is gathered and still on the hive, the apiary holds the most attraction for the bears. From the foregoing comments and the accompanying pictures it is not difficult to imagine the havoc one of the animals might cause in such an apiary as this. The bear (V) is the third animal Mr. Huggins has been obliged to kill. Small wonder, then, that beekeepers maintain night watches, set traps, and surround their apiaries with barbed wire entanglements as some of them are said to do. While some of these precautions may seem unnecessarily cruel, it is only by taking them that beekeepers in bear-inhabited areas can come through the season with a crop of honey unmolested.

Some Comments

By Allen Latham,

Connecticut.

NO doubt many beekeepers get a great kick out of such stunts as pictured on page 12. Personally I do not, and I wish to enter a strong protest here upon the danger of asking anyone up to be a possible victim of bee stings. No stranger should be subjected to any bee-stunt experiment. Only people whose reactions to stings are well known should be selected.

For many years now I have preached the fallacy of the flight of the bee. I wish to commend Grant D. Morse page 14, for his very accurate statements. Bees seldom if ever travel in a straight line, but always follow the line of least resistance.

Mr. Cale, on page 27, tells of furnishing water in metal containers with floats. I suggest that a burlap sack draped over the edge of the container of water reaching well into the water is fine. Fasten the sack so that the wind will not blow it off. On the same page he tells how he holds extra queens. He speaks of the loss of 10 per cent in two weeks. He says nothing of the impaired vitality of those queens which do not die. The fault with this system as I see it is that bees react differently to different queens and have favorites. The favorites are well cared for, but others are neglected.

Mr. W. H. Hull, on page 37, expresses the belief that moths caused bees to desert their hive. In my own experience there is always a primary cause which allows the moths (secondary cause) to drive bees from a hive. A poor queen, lack of stores, too small a colony to start with, each and all, and other causes may permit moths to get the upperhand. Not once in 53 years of bee culture have I ever seen a normal colony succumb to moths.

Prof. Zander, page 51, gives mighty good advice. Beginners especially are prone to injure their colonies by too much manipulation. I suggest that every young beekeeper set aside just one colony to monkey with.

Page 59. I have pumped honey from the extractor for years without regard to whether air was being pumped or not. In a tank holding 800 pounds I never have seen the scum excel half an inch, nor have I ever seen the air fail to come to the top. I am inclined to think that

many beekeepers mistake for air in some honeys the natural gasses of those honeys. Many honeys appear to carry minute gas bubbles, so small that they do not rise, while other honeys become very clear in a very short time. I do not think that the honey pump has anything to do with it.

All credit to the truth of the statement on page 65,—“we’d like a jar short and squat, etc.” American honey packers have gone daft on stream-lined, sky-lined, flute-lined, and jars of other crazy lines. 99 times out of 100 the buyer is after the contents of the jar not the jar. 999 times out of 1000 a repeat purchase is for the contents of the jar not the jar. Let us pay more attention to the quality of our product and the ease and comfort of the person taking the honey from the jar.

Dr. A. L. Hunt, on page 68 and 69 gives some interesting observations but offers a very poor diagnosis for a doctor. Foulbrood is not prevalent in box-hive beekeeping and is seldom found in bee trees for a very good reason. Robbing is the chief cause for the spread of foulbrood. Bees in bee trees seldom if ever rob, and in the case of box-hives give little trouble. With the frame hive it is far different. Many beekeepers keep hives open too long and all the season long harbor a lot of bees ever on the alert ‘o get a load of honey easily. They also spread disease by exchange of combs and bodies. Bee trees and box-hives escape this menace.

It is amazing to have Dr. Hunt suggest that wild bees may be immune to the disease. Wild bees are only escaped bees. Better read on page 733 of December Gleanings what Mr. Freeland has to say. He will tell you that foulbrood is caused by queens being reared by the grafting method. Now turn to page 83 of A. B. J. and learn that decaying bodies of dogs are the cause.

On page 68 we find the catnip extolled as a honey plant. It is very true that bees are always on the bloom of this plant, but do they get any honey worthwhile? I have never been able, though I have tried many times, to find a bee on catnip with any load of nectar. I have opened bee after bee to see what the nectar

of catnip might be like. Arthur C. Miller used to call catnip “the tippling place of the bee.” Bees like the taste of catnip nectar just as many men like the taste of some liquid with alcohol in it. Personally I have long given up catnip as being of any value to the beekeeper.

Allen Latham.
Conn.

—ABJ—

Pollen in the Honey For Hay Fever

By Howard Potter, Jr.,
Massachusetts.

I read your note in the January issue, page 9, about hay fever. I do not like the pollen in the honey theory. I have not had hay fever and I have had no experience at all with hay fever and honey, but since many people have reported cases helped by honey, it must have some value under the right conditions. I do not believe any helpful effect can be due to the pollen in the honey because in all the accounts I have seen or heard the victim seems to have had the hay fever at the time the honey was taken.

As I understand it, the pollen treatment consists of finding first the particular pollen to which the person is sensitive, then building up a resistance by injecting gradually increasing doses over a long period of time. The type of poison seems ‘o be the same as that in bee stings and the treatment is the same as that often suggested for people over sensitive to bee stings. One would not expect a person suffering serious effects from a bee sting to be cured by giving him another one, which would be as reasonable as giving a hay fever victim more pollen to cure him.

The pollen theory is unlikely for another reason. The pollens causing hay fever are usually from wind pollinated plants not visited by bees, so the amount that would be found in honey would probably be small, and any that did happen to be there would be of little effect because it is taken by mouth.

If the pollen theory, therefore, is disregarded, there is no reason to believe that each person must have a particular honey. Maybe honey is good for hay fever in general.

Allegan County Exhibit of Herbert Morehouse

This picture shows the exhibit of Herbert Morehouse, at the Allegan County Fair, Michigan. The entire exhibit at this fair was the best one in the society's history. Also the attendance this year broke all previous records. One day, the attendance was estimated to be over 15,000 people. The Morehouse exhibit won a cup for the third time for the best honey display.

—ABJ—

Value of Alighting Board

The alighting board in front of the hive is of more importance than is generally recognized. One of the things which a beginner has to learn is to watch and study the movements and moods of bees at the entrance of the colony. It will help much to tell one about the condition of the colony. That sloping board gives you a chance to examine all the materials the bees throw out. It is amusing to watch their efforts to tug the heavy pieces of comb and other particles out of the hive. Also you can pick up whatever they carry and ex-

amine it with a hand glass.

The two less dangerous brood diseases, sac brood and European foulbrood, can be recognized in the dead larvae and presence of wax worms. With beginners, or those who do not care to open the hives, this helps perhaps. They can get some information, but it must be remembered that the best way to know the condition of the colony is always to look inside.

A good wide entrance with the alighting board gives the amateur a good chance to look at the bees from a distance with a hand glass or a field glass and see the frantic way the bees clean and scour; the venturesome youngsters who come out of the en-

trance too early in life; the way the storm troupe jumps a robber and gives him the bar room rush; and maybe kill him if he doesn't take the hint to stay away from where he doesn't belong.

George Demuth said, "Keep up the morale of the colony." That is of first importance. Bees cannot look ahead with the intelligence of men. They must have things right in the hive, and when they do have it right, you see the most wonderful thing in nature, a colony of bees that works with vim and enthusiasm.

Study the entrance. If the queen is lost or if disease starts, you will soon see the bees crawling slowly about, crowding the entrance, all their enthusiasm gone, or you will see the flight of your bees at 2:00 o'clock in the afternoon in all the joy of life.

The alighting board should not be too long, a 45 degree angle is good. A piece of burlap tacked on the front to trail the ground is valuable, as the weak bees or a clipped queen can crawl up easier.

Edmond Fontaine,
Maryland.

—ABJ—

Rocky Mountain Exhibit

Honey in beautifully labeled, streamlined glass jars and attractively displayed in tins—"For Those Who Want the Best—the Honey with Flavor"—won for the Rocky Mountain Honey Company, Salt Lake City, wide recognition (and a blue ribbon) at the Utah State Fair in Salt Lake City in October. Stewart Grow, president and secretary of the company reports increased trade and good will built up by the exhibit, an outstanding booth at the fair.

Glen Perrins, Utah.



A Biology Lesson

By. Rev. Eugene J. Crawford,

New York.



THE picture shows a chaplain disguised as a beekeeper addressing a group of students, in October, 1937, on the grounds of the Queen of the Rosary Novitiate of the Sisters of Saint Dominic at Amityville, New York. The heavily fortified professor is the chaplain of the convent and the students are Sisters being trained to teach biology and botany, and a few girls from neighboring towns who attend a high school situated on the convent grounds.

It will be noted that the professor has carefully covered every opening in his armor, and thereby hangs a

story. In the spring of 1937, it was decided to improve the small convent orchard which produced an annual crop of ten dollars' worth of scrawny apples. The trees were pruned and fertilized, and spraying equipment prepared—and then the chaplain thought of bees. He knew that somehow bees produced honey and were good for orchards.

He laid in a supply of bee books and pamphlets, bought a few hives and three pounds of bees. In the bee books were pictures of gentlemen serenely handling bees with sleeves rolled up and face uncovered, so the

chaplain, considering life was already sufficiently complicated, decided to dispense with such things as veils and gloves. He had never been stung in his life—but he was soon to learn that while bee stings may for some be one of the minor hardships of life, for him they were a combination of a red hot needle and a mule kick.

Like traffic lights marking the scenes of accidents, the regalia in the picture shows the result of obtaining thirty-two bee stings in one season. The veil is a reminder of a bump on the forehead as big as a walnut; a closed eye which might have as well collided with the famous fist of Joe Louis; and a chin temporarily out of proportion. The gloves recall forays up his sleeves and the ankle guards are mementos of a day when eight bees explored and added shafts and arrows of adversity.

Yet, as time went on, the chaplain found that his little enemies provided the wholesome and healthy diversion of an attractive study. The little apiary finally expanded and contracted to all the mishaps of the beginner. Now, in the picture, he is giving the little group the benefit of knowledge gained in the painful school of experience.

Incidentally, the new apple crop netted \$150.00 instead of \$10.00.

—ABI—

Strange Case of Desertion

When I came here from Colorado, I brought a small load of bees. Among them was a queenless colony, and one that was very weak. The queenless one deserted their hive and united with the weak one. I never had this happen before. It must have been the moving that caused it.

Geo. Culver,
California.

A North Carolina Class

F. B. Meacham, of the University of North Carolina, Raleigh, sends us this picture of his class in beekeeping the spring of 1937. Wherever we go these days we find the number of young people interested in bees increasing rapidly, and there need be no fear that the ranks of those older beekeepers who, one by one, drop out of the picture, will not be taken up and their places filled with a new group of young people with new ideas and a new vision. They will bring about that silent revolution in our industry which will put it on a new plane and at a higher level.



That Indiana Bee Club



President L. R. Stewart's Bee Club at Newport, Indiana, has been given much publicity. Probably it is one of the most successful bee clubs that we have had to date in beekeeping, and other 4-H clubs are planning to model after it. The state has become much interested in it and as a result, President Stewart has issued a mimeographed pamphlet about the activities of the club and what they did. I think copies can be obtained from him. Address L. R. Stewart, Newport, Indiana, and ask him for his club pamphlet giving the story of the Newport, Indiana High School 4-H Beekeeping Club.

The local agricultural teacher and the special club instructor for the University of Illinois, Robert Beer, were equally responsible for the success of the club. I visited with some of the members of the club, saw their room in the school and the kind of work they have been doing, and I can give it hearty approbation. It was a well established program and anybody contemplating starting club work would do well to get in touch with President Stewart to have him send all the materials he can which will be a guide to the new club.

He sends a manuscript which he calls "Fundamentals of Beekeeping" giving an outline of a first year course for vocational agricultural work which is very valuable. I wish we could produce it in its entirety. We may do it some time, but we can't do it this issue. It is seventeen pages long and is actually a detailed report of the seasonal activity of this club. Will try to give it a decent part some time.

These two pictures taken by Ben Wilkins, deputy inspector with Mr. Starkey in Indiana, show the club in action and also posed for their picture. In the group picture, facing the camera, the second from the left is President Stewart.

Robert Beer gave a report of the season's work with this club at the short course in Illinois this winter. It made one wish that Bob would continue with club work, but he is too much interested in bees and honey as an occupation. So I suppose we have another beekeeper, one of those modern youngsters, who will see things with new eyes.

-ABJ-

Strawberry Clover

The following questions relating to strawberry clover came to us from an Idaho subscriber:—"I have learned of two farmers near here who have grown the (strawberry) clover on damp ground. I have talked with one of them as to its nectar secreting possibilities. He had not taken notice. Seed was sold here at \$1.50 per pound and the local golf course will have about thirty pounds applied the coming season. What I wish to know is, is it a honey plant worthy of encouragement from the honey producer's standpoint?"

Strawberry clover, (*Trifolium fragiferum*) is a perennial low growing clover native to the Mediterranean region. It has been grown as a pasture plant in Australia and New Zealand but until recently was unknown in this country.

Its name is derived from the fruiting head which is about the size and shape of a strawberry. Dr. E. A. Hollowell, of the U. S. Department of Agriculture, in answer to an inquiry says: "Strawberry clover is one of the more recently escaped plant immigrants which appears to be very promising for alkali or saline soils which are wet. This clover looks a good deal like white clover in vegetative growth but its blooms look like a strawberry and the calyx of each pod upon maturation becomes inflated. It also has a tendency to look like a strawberry especially before the tissue becomes brown. It is the most salt tolerant legume that we have and there are but few palatable grasses which will compare with it in this respect. Apparently it has no ill effects on the livestock which graze upon it, even though it is grown under conditions favorable to the accumulation of salts in the tissue."

Bees are reported to work upon this new plant but it is too soon to tell much about its value under American conditions. Since it belongs to a family of plants which includes some of our finest sources of honey we assume that strawberry clover will provide a new source of bee pasture in the soggy fields of the irrigated regions. As yet the acreage of strawberry clover is very small but since so few plants will succeed on the soils where it grows, it is to be expected that the acreage will increase rapidly.

Beekeepers who live in the vicinity of land where the plant has been introduced will confer a favor on the industry by observing closely its value as bee pasture and reporting to this magazine.

F. C. Pellett.



Hiving on Foundation

I notice the complaint by Mr. Stewart about hiving diseased bees on foundation. I can partly agree. Last summer I had two bad cases of disease and on the first of August I hived them on starters, destroying all the brood. Four days later I shook them on full sheets of foundation, feeding each 10 pounds of sugar syrup. The colonies recovered and I gave them supers with full sheets of foundation which they drew out and filled with goldenrod and smartweed honey. This was removed when they went into their winter cluster. They were surrounded by solidly filled combs of honey from wall to wall. I packed them. Now, should I have burned them?

F. H. Laird,
Missouri.

[It is hard to answer Mr. Laird, isn't it? We have been asked just lately by an important apiary official what our attitude is in relation to burning. I think we will have to state it about like this: With a wholesale infection of American foulbrood, where all the bees can be treated and the bees saved by some acceptable method, combs disposed of and the equipment cleaned, considerable of the investment would be in that way saved, particularly where the importance of this investment is serious to the beekeeper.

However, when the amount of disease is small and difficult to handle, the very best way and the safest way at all times is to burn. So, perhaps we sit on the fence, and in our own case let us say that while we used to be heartily in favor of treating, we never treat any more; and we do approve of fire.—Ed.]

—ABJ—

Lespedeza Again

It seems to me there is a divided opinion about the value of Lespedeza as a honey plant. I have made a close study of it the last three or four years, and I have found it to be rich in nectar when in bloom, particularly during the first three of a four year period. Last year, I made a closer observation over a larger territory. It was not yielding well in some places but yielding richly in others, some only a few miles apart.

For instance, I visited several small apiaries the same day and on different days and found some yards busy on Lespedeza and others idle. My yard at the edge of town in reach of 100 acres was carrying little on one day, but ten miles away another small yard was in the midst of one of the heaviest flows I have ever seen. There is no other bloom there to furnish honey which will equal Lespedeza while it lasts.

White Dutch clover and white sweet clover yield in a honey year and give the longest honeyflow. However, there is little white sweet clover here and the white Dutch is good only about every third year. Alfalfa is no good here. I have seen the bees on it only a few times and there are many acres of alfalfa each year.

I have one yard in the Smoky Mountains where there are many poplars, basswood, sourwood and other bloom. The honeyflow is fairly good on poplars and is very good on the basswood from June 12 to July 15. I get my finest honey there.

W. E. Watson,
Tennessee.

—ABJ—

How Can They Do It?

In the March issue of "Food Industries," devoted to canning, packing and the distribution of food products, published by McGraw-Hill Publishing Company, Inc., on page 124 is an item: "Section 8850 of the Oklahoma Pure Food and Drug Law says: 'It shall be unlawful for any person to sell...any honey which has not been homemade by bees, unless same is labeled **imitation**....'"

Now, will you tell us how they have discovered, down in Oklahoma, a way to imitate beemade honey. I think there is still \$1000 reward for the first successful production of comb honey by imitation. There have been numerous attempts to imitate extracted honey, but usually the perpetrator of these frauds lands in the toils of the Department of Food and Drugs, so very few attempts to adulterate honey are found today.

Apparently, Oklahoma has discovered a way out.

—ABJ—

Canadian Honey Crop For 1937

Returns received by the Dominion Bureau of Statistics from more than 51 per cent of the beekeepers of Canada indicate a very much lower yield than for 1936 in both the total production and in the yield per hive. The average yield per hive of extracted honey was 49 pounds in 1937 compared with 71 for 1936, 2.3 pounds of comb honey compared with 4.3, and 0.76 pounds of wax compared with 0.97.

Total production of extracted honey was estimated to be 3,430,500 pounds in 1937 compared with 5,088,080 in 1936, 158,190 pounds of comb honey compared with 307,470, and 52,810 pounds of wax compared with 69,360.

Winter loss of bees, winter killing of the major sources of honey and drought conditions during the summer months were the chief factors responsible for the short honey crop in 1937. It is estimated that 22 per cent of the yield of extracted honey is retained by the producers and 78 per cent is sold at retail and to the trade.

[From "Foodstuffs Round the World," Department of Commerce, February 23, 1938.]

Too Much Speed, Too Little Courtesy

Harry Barsantee, of the Travelers News Bureau, Hartford, Connecticut, sends us a release commenting on the booklet "Death Begins at 40," a compilation of the accident records for automobile traffic in 1937. If you have not read this book "Death Begins at 40," you have probably missed your share of the personal education you should receive in better and safer driving.

Basic reasons for the shameful accident record of last year were "too much speed and too little courtesy." A car is four times harder to stop at 50 miles an hour than at 25, and nine times harder at 75 miles an hour than at 25, and the driver's turnability, or his ability to turn his car and manage it, decreases rapidly as the speed increases. He can only make one-fourth as sharp a turn at 50 miles an hour as he could have made at 25, and only one-ninth as sharp a turn at 75 as at 25.

If you have an accident while driving under 40 miles an hour, there is only one chance in 44 that somebody will be killed, but if the accident comes at a speed faster than 40, there is one chance in 19 that somebody will be killed.

After analyzing reports of 40,300 fatalities and 1,221,090 injuries last year, it was found that exceeding the speed limit was responsible for 37 per cent of the deaths and 25 per cent of the injuries. More than 94 per cent of drivers involved in fatal accidents were men and less than six per cent were women. Ninety-seven per cent of the drivers in fatal accidents had had one or more year's experience, and more than 78 per cent of all fatal accidents occurred when the road surface was dry. 83 per cent occurred in clear weather.

More persons were killed on Sunday than on any other day. The heaviest injury toll was on Saturday. More persons were killed between seven and eight o'clock at night than at any other hour.

In the last fifteen years, 441,912 persons have been killed in this country by automobiles. This is almost double the number of American soldiers killed in action or dying of wounds in all the wars this country has engaged in since the founding of the country.

Single copies of this booklet may be obtained free by writing to The Travelers Insurance Company, Hartford, Connecticut. Beekeepers should, by all means, get copies of it, because as a class, there are more fatalities among beekeepers from automobiles than with perhaps any other single group.

Meetings and Events

Southern Conference.

The Southern Beekeeping States' Federation will meet in Charleston, South Carolina, November 28, 29 and 30. Headquarters will be at the Fort Sumter Hotel, which overlooks the renowned Battery.

The program committee this year has adopted the slogan: "Something different and better than we have ever had before." Not that there haven't been many interesting programs in the past—programs so arranged and executed that we all went away from the meeting feeling better and inspired—there have also been some unique features on these programs. It was not, therefore, the intention of the committee to belittle other Federation meetings in adopting the slogan mentioned above, but we did feel that we wanted to make the 1938 convention the best and most unusual we have ever had. We are expecting a large crowd of beekeepers from all of the southern states, and it is our intention for them to leave Charleston feeling that it has been well worthwhile taking the time to come to South Carolina to learn more about beekeeping and to have a lot of fun.

E. S. Prevost, Chairman
Program Committee.

Ohio Beekeepers' Association January 1938

(This is continued from the April issue.)

Report of "Warning Poster" Committee:

E. E. Agler, Chairman:

After final amendments to his report, the following outlines were set up:

Fifty dollars to be set aside as a "Warning Poster Fund." The reward cards provide for \$10.00 as reward for evidence leading to the conviction of person or persons stealing, molesting, etc. (exact wording to be determined by committee). Association "Warning Posters" only apply to apiaries in Ohio. Cost of sign to members will be double the cost of printing, mailing. The 100% profit on cards to be placed in the "Warning Poster Fund" to build up fund for future possible needs. The committee (three) to cooperate with the secretary of the association in the operation of this project.

This report was accepted and adopted by members of the association.

Committee appointed to draw up wording, etc. for signs E. E. Agler, Chairman, R. D. Hiatt, Lloyd C. Gardner.

Mr. C. A. Reese made reports on Central States Bee Culture Laboratory. He stated that Anderson from Louisiana has indicated that southern breeders will furnish 500 packages if northern honey producers in central states will furnish equipment. Mr. Reese read a letter which Anderson, Louisiana Chairman of Committee of the American Honey Producers' League, wrote to Wisconsin, Michigan and Ohio giving these states opportunity to state what facilities they can offer; the state offering the best outlay probably being selected for location of Laboratory. No definite action was taken by the members of the association concerning the proposed Central States Bee Culture Laboratory.

Mr. Durrant made motion that sincere thanks be extended to Mr. W. A. Coulter, who had served as president for the past two years. S. E. Bailey seconded motion. Motion carried.

The talk entitled: "The Purpose of the Production Credit Association" presented by Mr. Samuel Studebaker, Miami Valley Production Credit Association, was of vital interest to the honey producers. Much discussion followed his talk. At the business session at the close of the day W. E. Dunham pointed out the necessity of some sound financing plan for beekeepers to enable them to manage their operations with maximum efficiency. He pointed out some of the dangers that might be involved. He stated that a few bad loans made by the Production Credit Association to beekeepers might result in this production financing agency dropping honey producers from their list. He mentioned that a committee from the association might be of much value if they draw up plans that would serve as a guide to the Production Loan Corporation. Loans made to beekeepers based on safe security would result in building confidence of the Credit Association toward our industry and could be looked upon by reliable operators as a desirable source to secure loans.

W. P. Smith made motion that a committee be appointed by Chairman, whose function would be to contact the Production Credit Association and cooperate with them in drawing up a plan on which loans

could be made safely to honey producers. Motion was seconded by Penn G. Snyder. Remarks before voting on motion were made by Merle Young, Seymour Bailey and J. E. Venard. Mr. Venard pointed out that in case of bad loans the Association could aid the Production Credit Association in helping to make better disposal of equipment, than could be done if equipment went up for public sale, where commercial beekeepers were not contacted.

The motion which W. P. Smith made was voted upon favorably by members.

Advisory committee to work with Production Credit Association, W. A. Coulter, Chairman, Merle Young, W. E. Dunham, Technical adviser.

Committee on out-of-state honey exhibits at the Ohio State Fair: Mr. W. P. Smith, chairman, reported that committee wished to defer any action as they did not have sufficient information to make any definite recommendations. There was a general discussion on this subject. It was thought out-of-state exhibits might be beneficial. No prize money would be offered, but prizes in the form of trophies offered. Trophies to be furnished by commercial companies, such as Krogers, Atlantic and Pacific Company, etc. At close of Fair honey would become the property of the State Association. The Association would be expected to sell honey and send proceeds to American Honey Institute.

Mr. S. E. Bailey made motion that members reconsider the subject under discussion and that a second committee be appointed. Mr. E. E. Agler seconded the motion. Motion carried.

Second committee on out-of-state honey exhibits: S. E. Bailey, Chairman, Otis Achord, W. P. Smith, C. A. Reese, Secretary.

Association adjourned.

Prominent Iowa Beekeeper Dies.

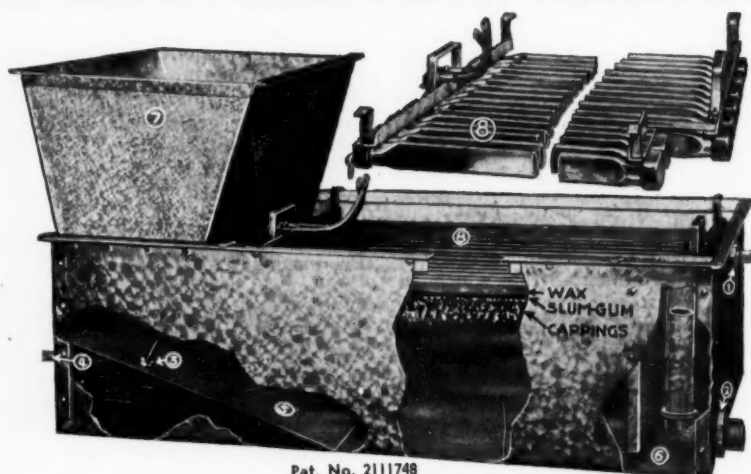
We learn of the death of Mr. B. C. Hall which occurred at Manchester, Iowa, on March 7, 1938. Mr. Hall was nearly 66 years of age and had been a beekeeper for many years, being a member of the Iowa State Beekeepers' Association for a long time.

In fact he had bees until just a few months previous to his death when ill health necessitated his giving them up. Mr. Hall was also interested in fruit growing and had been a baker and grocer in his home community.

In Charleston, South Carolina You Will See.

Beekeepers who attend the meeting of the Southern Beekeeping States' Federation at Charleston, South Carolina, November 28, 29,

BRAND CAPPING MELTER



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Tests have shown that every 100 pounds of cappings AFTER whirling in extractors, gravity drained or pressed dry, contain from 40 to 60 pounds of honey. Many producers have lost thousands of pounds of capping honey in the past. The great bulk of it saved, has been of poor quality selling at low prices.

With the BRAND, Under the Melter Feeding, little of the honey ever contacts the Steam Heated Melter Units.

With the Brand Melter, clean honey and clean wax of the highest quality is separated and runs away from the over-flow outlets, as the work progresses. There is a clean up of the work each day, with only a little slumgum to render at a later time.

New improved construction.

Send for printed matter.

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PRICES ON THREE-BANDED ITALIANS

Two pound package, with queen	\$2.45
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Queens, 75c each. Tested \$1.50. 15% Discount to Dealers.	

SHAW & HOMAN

♦ SHANNON, MISS.

and 30, will have an opportunity to see some interesting spots in "America's Most Historic City," for instance, the Pringle House. This structure was built about 1765 by Miles Brewton. It was headquarters for the British troops during the years 1781-82. It was also headquarters for the Federal troops in 1865. Of special interest is its picturesque old coach house.

Also, they will see the City Hall which was erected in 1801. This building was first used as a United States Bank. Its Council Chamber houses Trumbull's famous portrait of General Washington, as well as portraits and busts of others prominent in history.

And then there is the Post Courier Building. It was in this edifice that the Secession Ordinance was signed on December 20, 1860.

—o—

Weaver At Farmington.

Virgil Weaver, nomad beekeeper of the Middle West, has recently purchased a cattle ranch of 650 acres near Farmington, Iowa.

—o—

Stoller Fire.

I am sorry to report that we lost our honey house and factory January 10th, by fire. Most of our drawn combs and practically all the contents went. We are rebuilding with tile, brick, steel and concrete, and are trying to get going. We are making 4,000 supers and other equipment which keeps us on the jump.

Irvin A. Stoller,
Ohio.

—o—

Washington Seeks Pollination Standard.

The Washington State Horticultural Association at its annual meeting in December, at Wenatchee, made a request to have bees for pollination of orchards standardized in some way. This has come up before the Yakima association. The Yakima association will cooperate with the horticulturists and the state department to establish a standard.

I. L. Neill, Washington.

—o—

Yakima Officers.

J. B. Espey of White Swan at the February meeting of the Yakima (Washington) County Association was re-elected president; C. H. Shader, of Sunnyside, vice-president; and R. C. Immele, of Toppenish, secretary-treasurer. A decision was made to secure special aid from the state department for inspection, if possible. The demand for bees for pollination has greatly increased. The prices for service of colonies for the orchards remain as before.

I. L. Neill, Washington.

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For Over 50 Years

BEEKEEPERS in many lands have been pleased with this most important tool in Beekeeping. Your Bingham Smoker is offered for sale by numerous dealers.

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Since 1918
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ENVIRONMENT—
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with regular departments devoted to each phase
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RIVERA, CALIFORNIA



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2-Lb. package with queen... \$2.45 each
3-Lb. package with queen... 3.15 each
Laying Italian queen... .75 each
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CALIFORNIA PACKAGE BEES



Including Select, Young, Laying Italian Queens. Shipment by express or Parcel Post. Lowest transportation charges and quickest delivery.



FREE: Descriptive circular and Illustrated Booklet with directions for the installation and care of package bees

PRICES—2 Lb. package and queen.....\$2.45
3 Lb. package and queen..... 3.15
Queens, each75

Discount to dealers and on large orders

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Write for free Book on the . . . for free GREAT NORTHWEST

Thousands of acres of sweet clover and other honey plants that give honey of high yield and fine quality. Favorable localities—Red River Valley, in Minnesota and North Dakota; Milk River Valley; Lower Yellowstone Valley; Valier Project; Kootenay Valley, in Montana and Idaho; and the Pacific Coast Region in Oregon and Washington. ● Beekeepers in this country are increasing their holdings and new beekeepers are establishing themselves along the Great Northern Railway in these states. Diversified farming and livestock are similarly favored by low cost production. ● Write for Free Booklet on beekeeping and farming opportunities, including Low Homeseekers' Round Trip Excursion Rates.

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PER YEAR.

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BOTH FOR 75 CENTS

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PURE ITALIAN QUEENS

STOCK IMPORTED FROM NORTHERN ITALY

Pure Italian queens, bred from mothers imported from northern Italy. All leather colored. You'll like them. They are different.

PRICE ON REQUEST.

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JOE B. TATE & SON



BEES

PILE UP EXTRA SUPERS OF HONEY

Forty-six years' experience assures you of the finest stock of THRIFTY three-banded Italian bees and good service.

Our combless packages are guaranteed full weight. Shipping crates are made of the lightest material and screened four sides. We ship you young, THRIFTY bees that build strong colonies. No deposit required to reserve shipping dates. Book your order early and be sure of the best delivery.

2-Lb. package with queen.....\$2.45
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Untested queens......75

15% discount to dealers

Remember, THRIFTY bees are guaranteed to please.

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ITALIAN FOR 1938

Any quantity with the best quality.
Write for information.

R. E. LA BARRE
Box 172, Cottonwood, Shasta Co., Calif.

Short Course.

The annual short course for Iowa honey producers will be held at Ames on May 19 and 20. The guest speaker for this short course is Professor R. H. Kelty, of Michigan. Professor Kelty is known as president of the American Honey Institute; he has been a leader in beekeeping thought for many years and incidentally has been especially interested in commercial honey production. The topics which Mr. Kelty has chosen to discuss with the Iowa beekeepers are "Commercial Beekeeping as a Vocation," "More Honey with Less Work," and "The Relation Between Foulbrood Control and Expansion in the Beekeeping Industry." It is believed that these topics are of vital interest to every Iowa honey producer and it is hoped that a large number will find it possible to be present to hear what Mr. Kelty has to say on these topics.

The short course is being held in the spring this year in an effort to test out the desirability of this season for such work. It is possible at this time to conduct more demonstrations in the apiary and to have an outdoor laboratory.

Summer Meeting at Dubuque.

The summer meeting of Iowa beekeepers will be held at Dubuque, Iowa, on June 17 and 18. This meeting is in charge of the Dubuque County Beekeepers' Association co-operating with the Iowa Beekeepers' Association. Invitations have been extended to the associations of Minnesota, Wisconsin and Illinois. It is hoped that there will be a large representation of producers of these states at the meetings. The program will carry through two days and will consist of topics presented by authoritative speakers and by contests with an evening program of movies on honeybees. It is also proposed to develop a department on honey cookery with cooperation of the American Honey Institute and the Woman's Auxiliary of the Iowa Beekeepers' Association. It is known that the Dubuque County beekeepers are royal hosts and anyone who has had experience with meetings in Dubuque in the past will be more anxious than ever to go to this one. Those who have not had this experience have a treat ahead. It is hoped that the producers of Iowa and adjoining states will reward the efforts of the Dubuque County Beekeepers' Association.

Western Prospects.

The Intermountain beekeepers report a mild winter with little sub-zero weather. Idaho looks forth to another train load of honey. Nevada bees are in good shape with prospects for a normal crop. Wyoming reports a mild spring and generally mild winter. Glen Perrins, Utah.

Your Display or Classified Ad in A-B-J Brings Results That Please



This Honey Extractor

was designed especially for those who wish to use power, but do not need the large radial machines.

It may be driven by a ¼ H. P. electric motor or a small gasoline engine.

For further details write for our catalogue.

S. P. HODGSON & SONS

New Westminster,

British Columbia

Floods in California

We had no damage around Orange, but the Santa Ana River spread all over the country the other side of our location. I lost 100 colonies six miles from the river. The loss in Orange County will be close to 3500 colonies badly damaged or totally lost.

C. E. Lush,
California.

— o —

I am glad to report we had no direct damage. We were high and dry and managed to have our possessions in the right place. There was much damage in a part of Fresno, with four feet of water in some of the fine houses, and the furniture and walls in bad shape, and yet there was only a small part that was badly flooded, just the low places in the county. The rest of the county is high.

The first flood of the season in December, the two rivers, San Joaquin and Kings got on a rampage and got about 500 colonies of bees for Fresno County beekeepers, and in this last spell got a hundred more for a few fellows. There was a heavy loss in southern California. They actually had washouts there.

The rains were warm and all annuals have a splendid stand, so it should be a good honey season. Sage and wild buckwheat are in most favorable condition, but roads are washed out and it will be hard to get to many places. There will probably be a large number of bees taken to the orange. The orange trees are in good shape and heavily budded, and are coming early. Many buds are the size of match heads already, so it looks like an early honeyflow.

Geo. J. Brown,
California.

— o —

We have reports that around 20,000 colonies were lost in the storm area, mainly in Riverside, Orange and Los Angeles Counties. I know of 18000 lost among five beekeepers. Many an apiary has been completely covered with silt and mud making it impossible to know where to dig for the hives. Where colonies were in the path of the water, they were swept away and scattered from the bee yard, and in some instances, away to the ocean. All of the equipment found along the river banks or that which has been open or dislodged is being burned. Some of the boys lost their entire force of bees and are in such circumstances as to need immediate help. I feel sorry for the older ones who had no other source of income but beekeeping.

C. V. Walker,
California.

The loss has been heavy along the Santa Ana River. The area for miles adjoining the river is planted to oranges and is a favorite spot for many thousand colonies of bees during the orange blooming time.

The loss here in Orange County according to our bee inspector, Mr. Roy Bishop, is around 4000 colonies lost and flooded. In case of the flooded colonies, the combs are being salvaged in many cases. The water in the orange groves at places was one foot deep and in these cases the colonies were tipped over and combs filled with mud and silt. Many beekeepers have hauled in the combs and have washed them out with a hose and water pressure. Probably one thousand colonies more have been damaged.

Honey plants in the hills are in excellent condition now, due to the enormous rainfall of the past three weeks. Orange is beginning to bloom and the budding is spotted so I am not looking for over 35 pounds per colony even with good weather through the bloom.

There is very little honey in this district to be had; it is all about sold.

L. B. Crawford,
California.

— o —

Plant conditions in the Imperial Valley are about the same as for the past three or four years. There has been such an increase in the acreage of melons and vegetables that the bee pasture has been reduced considerably, and the continuance of dusting to control insects on these acreages is doing harm to beekeepers. In the foot hills, the 1934 drought almost wiped out wild alfalfa and it will be years returning. The freeze last year reduced the bee sage to the ground. This is a large bush which blooms in October and continues all winter, reaching full bloom from the 15th of March to the 30th of April. It grows on the dessert slopes of the mountains, down into Mexico and north to Warners, but I do not know how far north it grows. During the terrible floods on the coast, here, in the Valley, we had a four day drizzle amounting to about one inch in some places, dampening the ground about two and one-half inches. In the foot hills there was considerable rain.

An ordinance drafted by the dairymen prohibiting dusting by airplanes and one by the beekeepers limiting the hours for squash from 1:00 o'clock in the afternoon until 7:00 o'clock in the morning, and for melons and cantaloupes from 4:00 in the afternoon until 7:00 o'clock in

the morning, will come up before the supervisors in March.

There is much agitation over the whole question on the use of arsenicals on these concentrated acres of fruits and vegetables. The "Modern Living" magazine has had many articles on the arsenic menace, and the "Journal of The American Medical Association," in its July 10, 1937 issue, has an excellent article on this. One of the articles in "Modern Living" has a statement made that 700,000 bushels of apples were seized and held for recleaning in 1935 by Federal authorities. The losses to bees have been heavy in this Valley, and other counties up state have also lost. At least 9000 colonies have been lost in eight years in this county from dusting. Many dairymen have lost part of their herds from eating the forage poisoned by the indiscriminate distribution of arsenical dusting.

(Copied from letter from
Harry Cross, California.)

— o —

Hanford was not hit by any of the flood waters, but some districts along the rivers were badly flooded. There was no loss of life here or in Fresno. A residential district in Fresno was under water and a few adobe houses melted like sugar. In this district there were about 200 colonies of bees lost. The equipment was saved.

C. D. Dimmick,
California.

— ABJ —

Cover Picture

This month's cover picture was taken by Edgar Abernethy of North Carolina. It's quite fair all around, don't you think? Nice blossoms and nice—(We don't know who the young lady is but can't help being a bit envious of the one for whom her signal may have been meant) Thanks, Mr. Abernethy. Some of the rest of you try it now.

— ABJ —

The Old Boys Did Know Something

The description of foulbrood in "From an Old Bee Book," page 83, February, is almost perfect and so is the treatment if all the folks that have beehives with foulbrood would **cut out all the honey** and boil the hives in lye water 30 minutes, all the bees in America would become **immune**. (No mention of the dead dogs!—Ed.)

A. G. Pastian.

THREE THOUSAND COLONIES AND NUCLEI TO DRAW FROM

Standard Comb Nuclei.
Modified Dadant Nuclei.
Full colonies in new hives.

Package bees 2-lb. ----- \$2.45

Package bees 3-lb. ----- 3.15

Queens, each ----- .75

By rail or truck F. O. B.
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BEEWAX WANTED

for working into B. B. B. non-sag
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Clovers are excellent. Many there will
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**PACKAGE BEES AND QUEENS**

We have over 5000 colonies to furnish you package bees this
spring, which means dependable service. Thirty years' experience
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Untested Italian Queens ----- \$.75

2-Lb. Package with queen ----- 2.45

3-Lb. Package with queen ----- 3.15

15% discount to dealers

Let us book your order early. Write to

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This association is the only one in America today to offer to the
commercial honey producers, fruit growers and beginners a package of
bees shipped on a natural comb of brood and honey with queens already
introduced, which is superior to any other method of shipping bees.
Your queens will not supersede, you will have a brood nest started be-
fore the bees reach you. Once started with a comb package, you'll
never want any other type of package. Order Now!

Comb packages: 2-pounds bees, One Standard Comb, 1938 young laying
select Italian queen ----- \$2.45 each

3-pound bees, One Standard Comb, 1938 young laying Italian queen ----- \$3.15 each

To Modified Dadant Comb Packages add ----- .30 each

Young Laying Queens 75c; Extra pounds of bees 70c; Extra combs 70c; Combless
packages at same price. 15% discount to dealers.

Order from the following alphabetically listed shippers:

R. L. Bernell, Rt. 4, Box 252-B, New Orleans, La.

B. J. Bordelon, Moreauville, La.

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J. P. Corona, P. O. Box 124, Kenner, La.

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Ephardt's Honey Farms, Luling, La.

Harvin J. Gaspard, Rt. 1, Box 50-A, Mansura, La.

J. L. Gaspard, Hessmer, La.

Norma E. Roy, Hessmer, La.

Mention the American Bee Journal When Writing Advertisers

**Moving to
Outapiaries**

(Continued from page 209)

start of their rapid increase and do-
ing the job early enough to miss the
warm weather, it works all right.

In my own experience I have
found that bees will not smother as
easily as we used to think. Two
summers ago we had the hottest
weather ever recorded in Manitoba,
well above 100 degrees for a week
or more. During that season I had
one yard that was standing still, and
I decided to try a move in late July,
during that hot week. We used these
same entrance screens, and moved
the bees with two or three supers
attached, and not one smothered.
Some were left behind and through
a mistake three were left with closed
entrances through 48 hours of that
heat, and two out of the three sur-
vived. The third melted down. I
think that part of the explanation is
that by tucking the screen several
inches into the hive the bees were
prevented from crowding the en-
trance.

A point on which Mr. Pink and I
differ is about fastening the frames.
He always crowds the frames to one
side of the hive and wedges them
there with an empty queen cage or
something similar. He feels that if
this is not done there is a danger
that the combs may swing and the
queen may get injured. I do this
only if the frames are new. The
bees propolize the frames so that
we have to use a hive tool to pry
them out before new frames are in
use very long, so I believe that they
are tight enough not to move during
the truck journey. However some
may wish to take this extra precau-
tion.

Of course the colonies are ex-
amined before removal. In fact they
are looked through every week from
the time the packages are installed.
At the last examination they are gone
through for health and for queen-
rightness, and only those that pass
both tests are marked for moving. If
the queen and brood are not both in
perfect condition the colony is re-
tained at the home yard for further
attention. Those in the outyards are
left alone for two or three weeks
until the first load of supers go out,
at which time the clover is coming
into bloom.

RELIABLE LAYING ITALIAN

Queens 75c each. Discount to
dealers 15%

Orange Blossom Apiaries
Diamond, La.

Beekeeping in Northern Ontario

(Continued from page 212)

section and look along bottom bars.

Queens are confined to the lower brood chamber again about August 1st. This allows time for the brood to emerge and for honey to be stored in the combs.

The last week of July is the time recommended for requeening as that allows time for a second attempt if the first queen is not accepted. Many beginners have considerable trouble in performing this operation. Practice of adding combs of brood from strong to weak colonies appears to be unsatisfactory here. There is something, possibly atmospheric conditions, which induces or encourages the queen to lay all the eggs that the colony can care for, if she is able. The nights during May and June seem to be cool enough to chill any brood outside the cluster and that is what happens if the queen is keeping up her end of the work. Transferring brood seems merely to weaken the strong colony without benefiting the weak one. We find it best to reduce the size of the brood nest, to keep the colony protected and then to requeen in due season.

Swarm Control

As mentioned under "Seasons" natural swarming is almost confined to the month of July. Actual swarming out is prevented by dequeening, and requeening eight or nine days later with a laying queen. This method has always been successful here if the queen is accepted by the bees when introduced. The success of this method in preventing second preparation for swarming may be due to the season being so short that the bees do not have time to get going a second time before autumn conditions are upon them.

Requeening annually is practiced here except in a case of an extra good queen which may be kept as long as she will live.

Equipment

The 10-frame Langstroth hive bodies are used with a few shallow supers. Some other types of hives have been used here and seemed quite satisfactory, but have gradually dropped out probably for the sake of settling down to one size.

Quite a large assortment of wintering cases have been used here. The largest are on stands about 9 inches high with 6 or 7 inches of packing under the hives, leaving entrance about 18 inches above the ground. They allow 6 inches of packing at the sides and up to 18 inches on top. The smallest are on a 3-inch stand. They have flat covers and allow 3 inches of packing at the sides and (Please turn to page 232)



HONEY JARS

Hazel-Atlas presents four complete lines of Honey Jars, all designed specially for honey packers... Crystal clear glass displays the natural beauty of your product... Jars are easily packed and labeled... Available in a complete range of sizes... Write for free samples.

HAZEL-ATLAS GLASS CO.

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TALL CYLINDER JARS
1 1/2 oz. (individual service)
to 3 lbs.



EXCELINE JARS
1/2 lb. to 4 lbs.



SKYLINE JARS
1/2 lb. to 4 lbs.

Package Bees -:- Queens

75c FOR QUEENS : 2-LB. PKG. \$2.45 : 3-LB. PKG. \$3.15

15% Discount to dealers. Over 25 years' experience. 10% down books order.

WE DO LOTS OF TRADING. WHAT HAVE YOU TO TRADE?

30c a pound for beeswax in exchange for bees and queens. Rio Grande Valley headquarters for truckers. Where you feel at home. On Weslaco Progresso highway.

BLUE BONNET APIARIES

ROUTE 1, BOX 33

MERCEDES, TEXAS

BETTER BRED QUEENS Three-Banded Italians

What counts in package bees?

GOOD QUEENS
YOUNG BEES
PROMPT SHIPMENT
BUSINESS RESPONSIBILITY

Your business is Appreciated.

Reference: Merchants' National Bank, Mobile, Alabama. Any of the Bee Journals.

Prices	
2-Lb. package with queens	\$2.45
3-Lb. package with queens	3.15
Select, untested queens	.75
Later Prices	
2-Lb. packages with queens	\$1.95
3-Lb. packages with queens	2.55
Select, untested queens	.50

Above prices subject to discount. Let us book your order for later packages.

CALVERT APIARIES, CALVERT, ALA.

PREPARE NOW!

The ample snows and spring rains together with an easy winter on clovers make the prospects for this year unusually good. We are not sacrificing quality for this year's low prices. Every sheet of our foundation sold is perfect.

The heavy cell base gives combs which will be of service for many years to come. This also gives it the quality of non-stretching which is the only assurance of straight combs that every beekeeper admires. Our thin super is made of the whitest wax obtainable.

Write for your price list today.

GUS DITTMER COMPANY, AUGUSTA, WIS.

**ITALIAN QUEENS
PACKAGES
ORCHARD
PACKAGES
NUCLEI**

QUEENS, 75c each—TWO-POUND PACKAGE OF BEES, WITH QUEEN, \$2.45.—THREE-POUND PACKAGE OF BEES, WITH QUEEN, \$3.15.—FOR NUCLEI ADD 70c PER COMB TO THE PACKAGE PRICE.

Will take honey or wax as payment for bees.
Orders filled promptly.

HOMER W. RICHARD, 1411 Champnolle, El Dorado, Ark.

SERVICE

Is Your Order Placed?

QUALITY

The shipping season is here. In order that you may have no delay

Place Your Order Now!

We guarantee prompt service, safe arrival, and complete satisfaction. Order direct from this advertisement.

2 Pound Package with Queen	2.45
3 Pound Package with Queen	3.15
Queens	.75

15% Discount to Dealers

**GEO. A. HUMMER & SON
PRAIRIE POINT, MISS.**

EXPERIENCE

PROMPTNESS

Some Notes Regarding Beekeeping in Northern Ontario

(Continued from page 231)

about 8 inches on top of the colony but have no packing underneath.

These cases hold, one, two or four colonies each. The results to date indicate that the smaller cases are as good or better than the larger ones from both the point of economy in handling and of wintering quality. It is probable that bees will winter better in them because, first the entrance and then the whole case is covered early with a blanket of dry feathery snow keeping the hive dark and at a uniform temperature. It also prevents the case from being blown and buffeted by the wind. Snow is swirled away from the large cases and the larger the case the more it is swirled away unless it is well protected in a grove of trees or is close to a high fence. These large cases often have a ring of bare ground about two feet wide immediately around them with a drift of snow, possibly three feet or more high, beyond the space.

An absorbent or porous quilt appears to be advisable as there is a greater condensation of moisture here than in more moderate climates and that causes mould to start very readily.

Thunder Bay District

Very few beekeepers in this district. The district of Thunder Bay has a large percentage of rock surface and is rougher than any of the other districts. Scenery is wonderful but agrarian possibilities not so good except in some valleys and other comparatively small areas. Though it is a large district it has the smallest rural population.

There are no extensive beekeepers. The few who have bees are limited to possibly five or fewer colonies. They are all centered in the southwest corner of the district.

The area traversed by the northern railway line is very rough and rocky.

—ABJ—

Bulletin on Marketing

The University of Delaware, at Newark, has recently issued Extension Circular No. 32 entitled, "Roadside Marketing of Honey in Delaware," by John M. Amos.

Roadside stands, especially near large centers of population offer unusual opportunities for retail sales of honey. Any beekeeper who is so situated as to make use of such an outlet will do well to secure this publication and consider its suggestions.

Crop and Market Report

Compiled by M. G. Dadant

For our May Crop and Market page, we asked reporters to answer the following questions:

1. How much honey left?
2. Is it selling well?
3. Condition of bees.
4. Honey plant conditions.
5. Are honey crop prospects better than a year ago?

Honey on Hand

There is not quite the clean-up of honey that one would expect, on account of the short crop last year. This largely is due to the fact, of course, that the business recession has cut in on buying power and for that reason retail sales of honey have not been up to average. However, do not assume that there is to be a big carry over. This is not true. The heaviest amount on beekeepers' hands in any state is 15 per cent and most states report all honey out of the hands of beekeepers, with very few exceptions. However, there has been, up until the past two weeks, a tendency for the market to weaken, whereas at a similar period last year, the market was strengthening, owing to the absolute scarcity of honey.

How is Honey Selling?

As indicated in the foregoing paragraph, honey is selling only from fair to slow, undoubtedly mostly on account of the business conditions and, of course, the fact that we have had a moderate winter, rather than a very severe one which would call for more energy producing foods. There is a steady demand on the part of the bakers, but we believe that the volume of honey offered by such organizations as chain stores has dropped off considerably owing to the difficulty in getting a fresh supply.

Condition of Bees

The moderate winter has brought bees through in fairly good condition, at least with little loss of the original colonies. There is the difficulty, however, that bees which were more active during the winter season are more likely to dwindle during the spring unless there is a possibility of replacing with younger bees. The spring has been moderately warm and brood rearing has proceeded in most sections satisfactorily but the dangers of shortage of stores undoubtedly mean that in many cases, especially with the inexperienced beekeeper, the volume of brood rearing has not been maintained, and the dangers of spring dwindling are increased.

The bees, particularly in the Southwest and in California, have wintered well, owing to the moderate weather and the fact that the early honey plants have been abundant. Such states as Alabama, Louisiana, Mississippi, etc. report the best conditions in years and, in fact, bees too forward for the season, causing the package shippers much difficulty in holding down swarming.

Honey Plants.

If our readers will refer to the May issue of last year, Crop and Market page they will notice that honey plants at that time were very far below normal and it was anticipated, on the part of the writer, that likely the honey crop could not reach a normal unless there were abnormal honey producing conditions, which would allow the plants on hand to produce frugally.

The opposite is true this year. Honey plants are in far

better condition than a year ago and this applies to practically all sections of the country except perhaps some parts of Nebraska, Kansas, and some of the irrigated regions of the intermountain territory, which report about normal conditions. The white clover and sweet clover areas, although spotted in some sections and affected by drought which did not allow quantities of plants to grow last fall, are on the whole in far better shape than a year ago. White clover prospects especially are a great deal improved and it seems that there might be a possibility for at least a moderate white clover crop with the chance of something even better. As a matter of fact the whole country over appears to be somewhere near normal this year as contrasted to far below normal a year ago.

Naturally we have to confront the possibility of a drought such as we experienced in 1936 which cut favorable conditions in the spring absolutely in two as the drought developed during the summer. The writer cannot help but be optimistic, however, on the general prospects for this year in view of the way bees have come through and the general honey plant situation. Naturally, the long, warm spring season is going to require a lot of feeding on the part of the beekeeper or else there will be a loss by starvation.

Crop Prospects.

As stated in the preceding, crop prospects, therefore, are far better than they were in 1937 to the writer's notion better than they have been in several years. From New England to California, prospects seem to be favorable. New Mexico and Arizona perhaps are slightly under last year and this may also apply to some parts of western Minnesota and eastern North Dakota, as well as Nebraska and Kansas which have suffered from drought late last year and thus the honey plants are not in sufficient quantities to make one optimistic. The same may perhaps apply to southwestern Iowa and northwestern Missouri. In all other sections, however, we believe that prospects are far in advance of a year ago.

The situation in California may be called to the reader's attention. California has had copious rains this year which have, of course, delayed the orange crop and perhaps will make it less than a year ago. The same conditions make a question mark of the sage. In fact some of the reporters are claiming less orange and sage honey than a year ago. There is no doubt, however, that the prospects for the later flowers, owing to rains all over the state, are far better than in 1937. When we consider that California produced in excess of twenty million pounds last year, we can see what an effect it has upon the honey market when a big California crop is harvested ahead of any of the other sections which seek the large markets.

So far, very little honey has been harvested, although the harvest so far in Florida and other extremely southern sections appears to be better than it was in 1937.

All in all, the writer is optimistic over bees coming up to the honey crop in excellent condition and finding ample honey flora for them, provided we have average climatic conditions.

While honey has been slightly draggy on the market this spring, the carry over is relatively small and the change in general business conditions might allow the new market to open up under very favorable possibilities.

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Successor to
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Extracted Honey bought and sold
Reference: First National Bank of Chicago.

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Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEEES AND QUEENS

FOR FINE PACKAGE BEES AND QUEENS of the three band Italian stock. Let us fill your order. Carolina Apiaries, A. E. Cardner, Mgr., Rt. 5, Burlington, N. C.

CAUCASIAN BEES AND QUEENS, extra gentle, prolific, hardy and winter in the North like their own country. Long-tongued, dependable workers. Prices, 2-pound package bees with queen \$2.45; 3-pound package bees with queen \$3.15. 15% discount to dealers.

P. B. Skinner Bee Co., Greenville, Ala.

GOLDEN QUEENS, excellent quality that produce hardy, gentle workers, personally reared. Untested 75c; tested \$1.50. Health certificate. Satisfaction guaranteed. O. E. Brown, Route 1, Asheboro, N. C.

PACKAGE BEES WITH QUEEN INTRODUCED eliminates loss of queens. Send for free folder. A. O. Smith, Mount Vernon, Indiana.

PACKAGE BEES that will please you. Sternberg Bros., Lockhart, Texas.

PACKAGE BEES ITALIAN-CAUCASIAN YOUR CHOICE, 2 lb. with queen \$2.45; 3 lb. with queen \$3.15. Guaranteed. Crenshaw County Apiaries, Rutledge, Ala.

MACK'S QUEENS—They Speak for Themselves. Can book orders for few hundred more queens for delivery latter part of May. Disease free and fully guaranteed. May, 75c; after June 1st, 50c.

Herman McConnell, Robinson, Illinois.

CHOICE QUEENS from selected strains of Caucasian and three-banded Italian stock. Write for prices and descriptive circular. E. J. McNay, Davis, California.

ITALIAN BEES that please. Limited number select queens, 75c each.

Remcoft, Reynoldsville, Pa.

UTILITY BEAUTY STRAIN Pure Italians, package bees, queen caged or loose, 2 lb. only \$2.50. Select young queens, 75c; tested export \$1.50. Wallace R. Smith, Mt. Vernon, Ind.

EMPIRE STATE Strain Italians. Bred for honey production. Coggsall & Son, Groton, N. Y.

THREE-BANDED Italian bees and queens, 2 pound packages with 1938 queens, at retail \$2.45 each; dealers, \$2.08 each. 3 pound packages with queens, at retail \$3.15 each; dealers, \$2.65 each. Nuclei, write for prices. Full weight, all shipments on time. Little River Apiaries, Box 83, Gause, Texas.

MY CAREFULLY bred queens and package bees will mean dollars for you. Let me quote you prices. D. P. Green, Deland, Fla., Rt. 2.

PACKAGES—2 lb. hybrid bees, young Italian queen, \$1.50. Additional pound bees 48c. Elevation Apiaries, Milano, Texas.

CAUCASIAN BEES AND QUEENS, April, May, 2 lb. package \$2.45; 3 lb. package \$3.15; untested queens 75c each. Safe arrival, satisfaction. Tillery Brothers, Rt. 4, Box 182, Greenville, Ala.

LEATHER COLORED ITALIAN BEES and Queens. Try us with an order. We will please you. Dixieland Apiaries, Greenville, Ala., Star Rt. West.

GOLDEN ITALIAN QUEENS of fine quality. Select untested 75c each. Carolina Bee Farm, W. O. Curtis, Mgr., Graham, N. C.

PACKAGES BEES Supplied with Young Three-banded Italian Queens. Excellent quality that produce hardy, gentle workers; personally reared queens that are the best. 2 lb. package bees and queen \$2.45; 3 lb. package bees and queen \$3.15; select untested queens 75c; select tested \$1.25. Discount to dealers or on large orders. Health certificate furnished. Satisfaction guaranteed. Hafley Bros., Gause, Texas.

GOLDEN ITALIAN QUEENS that produce good honey gatherers. Tested \$1.50; select tested \$2.00; untested 75c. D. T. Gaster, Rt. 2, Randleman, N. C.

BRIGHT Selected Italian Queens and Bees. Price with queen—2 lb. \$2.45, 3 lb. \$3.15. Untested queens 75c each. Any number. My queens are bred by E. F. Day, formerly of Honorville, Alabama. Satisfaction guaranteed. George Bray, Moultrie, Ga.

FOR A GOOD HONEY CROP try our Three-Banded Italians. Alamance Bee Company, Graham, N. C.

EXTRA YELLOW Italian Queens that produce bees a little more yellow than three-banded; more gentle and just as good workers. Untested 75c each; tested \$1.50. Health certificate and satisfaction. Hazel V. Bonkemeyer, Randleman, N. C., Route 2.

CAUCASIAN QUEENS—Again I am offering my famous northern honey getters. They can take the cold winters. Gentle and prolific. 1 to 10, 75c. Ready June 1. Booklet. Bird's Apiaries, Odebolt, Iowa.

ITALIAN Bees and Leather Colored Queens, personally reared, the best that money can buy. For that spring rush give me a trial. Satisfaction guaranteed. Carl Larsen, 638 Bridge St., Colusa, California.

NOTICE YOU NORTHERN BUYERS, Golden Italian bees and queens that get the honey. 2 pound package \$2.45; queens 75c. Oregon Bee Co., Route 1, Box 296, Salem, Oregon.

MILLER BROTHERS, Three Rivers, Texas. Only exclusive Caucasian breeders west of the Mississippi. Packages with queens introduced.

HONEY FOR SALE

LIGHT AMBER Mangrove honey in new sixties. Peter W. Sowinski, Fort Pierce, Florida.

HOWDY'S HONEY: Small lot of white clover and amber, mixed extracted in sixties still on hand. Howard Potter, Ithaca, Michigan.

WELL RIPENED clover extracted sixties 8c; amber 7½c. H. G. Quirin, Bellevue, Ohio.

FOR SALE—Northern white extracted and comb honey.

M. W. Cousineau, Moorhead, Minn.

CHOICE Michigan Clover Honey. New 60's. David Running, Filion, Michigan.

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HONEY FOR SALE—All kinds, any quantity. H. & S. Honey and Wax Company, Inc., 265-267 Greenwich Street, New York.

HONEY PACKERS—Write us for prices on carload lots of California and Western honeys. We stock all varieties. HAMILTON & COMPANY, 108 West Sixth St., Los Angeles, California.

FOR SALE—Fancy, well ripened, white sweet clover honey in 60-lb. cans. Extra good quality. Dadant & Sons, Hamilton, Ill.

WHITE sweet clover extracted in new sixties. Prices reasonable. Case or ton lots. Satisfaction guaranteed. Harry C. Kirk, Armstrong, Iowa.

AMBER HONEY—Fine quality. Next crop will be ready May 15th. Harry Spooner, Stephens, Arkansas.

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WANTED—Carlots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, California.

WANTED—Comb, chunk comb, white and light amber extracted honey. Any amount. Central Ohio Apiaries, Millersport, Ohio.

WANTED—White and Amber Extracted Honey, any quantity; also beeswax. Write THE FRED W. MUTH CO., Pearl and Walnut Sts., Cincinnati, Ohio.

FOR SALE

BEE SUPPLIES, honey pails and jars. Cash paid for all grades of honey.

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BEEES and 10 frame supplies, all state inspected. James Sanford, Genoa, Nebr.

25 STANDS Italian bees in 8 frame new hives \$75.00. 25 stands Italian bees in 10 frame old hives \$75.00. Shallow supers, crop and equipment a matter of correspondence. Geo. Gordon, 418 S. W. 2nd Ave., Miami, Fla.

ROOT 1 inch honey pump and connections. in excellent condition, \$17.00. Friction power drive and pulley for large 4 frame extractor \$9.00. Root uncapping machine early model. Allenville Apiaries, Allenville, Ala.

WANTED

WANTED—Original poems, songs, for immediate consideration. Send poems to Columbian Music Publishers Ltd., Dept. P18, Toronto, Canada.

WANTED—Experienced beekeeper of clean habits. Give age, weight, experience, references and wages expected with board and room. John Kneser, Hales Corners, Wis.

WANTED—Beehive Displays. New York City, Max Ams Inc., Greenwich & No. Moore Sts.

EXPERIENCED beekeeper wants work. Prefer West. Can operate large outfit. References. Box 50, care American Bee Journal

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FOR SALE—Comb foundation at money-saving prices. Plain, wired and thin section, wax worked at lowest rates. Combs and cappings rendered. E. S. Robinson, Mayville, N. Y.

ATTRACTIVE PRICES on bee supplies and comb foundation. Send for catalog. Saves you money. THE FRED W. MUTH CO., Pearl and Walnut Sts., Cincinnati, Ohio.

FOR SALE—Queen mailing cages. Material, workmanship and service all guaranteed. Write for quantity prices.

Hamilton Bee Supply Co., Almont, Mich.

\$11.00 is our price for working 100 pounds of your wax into medium brood. Our large modern bee hive factory is manned by experienced workers milling thousands of pounds of comb foundation and hundreds of thousands of board feet of lumber into beehives annually. Quality at Low Cost is our motto. Free catalogue. Free shipping tags for your wax. The Walter T. Kelley Co., Paducah, Kentucky.

PIERCE QUEEN grafting tools and electric uncapping knives. Free illustrated descriptions. 340 Crosby St., Altadena, Calif.

DIFFERENT, that's all. Written and published for the instruction of beekeepers. 52 pages of breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.50. Sample, 3c stamp.

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SAVE MONEY WITH A RIETSCHKE FOUNDATION PRESS. WAX WORKED INTO FOUNDATION MEDIUM BROOD 15c LB; 100 LBS. \$11.00; THIN SUPER 22c MADE ON NEW ROLLER MILLS.

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BOOK BARGAIN—Very slightly damaged copies of Beekeeping in the South by Kenneth Hawkins, cloth bound, published to sell at \$1.25, price postpaid only 29 cents.

American Bee Journal, Hamilton, Ill.

Extracting Equipment For the Honey House

This is the title of a new bulletin by the extension department of the Pennsylvania State College, State College, Pennsylvania, and written by Edwin J. Anderson, the state beekeeping specialist. It is devoted entirely to the discussion of extracting equipment and it is very well prepared. It discusses equipment for an apiary of 75 colonies including extractors, dry liquefying chambers, bottling tanks, honey strainers, capping melters, etc.

Then it gives an estimate of the equipment for the larger honey producers, and the arrangement of the equipment in the honey house, with suggestions for sufficient handling of the honey. If you are interested, ask for circular 188, of the Pennsylvania Extension Department, State College, Pennsylvania.

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Where you get more for your money in **QUALITY** and **SERVICE**.
Ready to ship the latter part of March.

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PACKAGE BEES and QUEENS RELIABLE THREE-BANDED ITALIANS

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Prices to June First

Three-pound package with queen	\$3.15
Two-pound package with queen	2.45
Each additional pound of bees	.70
Mated Italian queens	.75

15% discount to dealers

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Lowered Prices on Packages and Nuclei St. Romain's "Honey Girl" Italians

Package	(1 to 10)	(11 to 24)	(25 or more)
2-Lbs. Bees and queen	\$2.45 each	\$2.20 each	\$2.10 each
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Highest guaranteed good service, safe delivery, no disease. Louisiana State Department of Agriculture Inspection Certificate, certifying freedom from disease with each shipment. St. Romain's "Honey Girl" Italians are known throughout the United States and Canada for their hardiness, productivity and gentleness.

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ITALIAN OR CAUCASIAN, your choice of queens Ready April 1st, every shipment guaranteed, speedy service, Parcel Post or Express, honey producing quality no disease.

Untested queens 75c; 2-lb package with untested queen \$2.45; 3-lb. with untested queen \$3.15; 4-lb. with untested queen \$3.85. 5-lb. and untested queen \$4.55. Free circular.

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CALIFORNIA PACKAGE BEES & QUEENS

BUYERS ATTENTION: After 20 years' experience as a commercial beekeeper I feel justified in saying, the 3-banded Italians I have are as good as any on the market. I assure you that all orders or inquiries will receive my prompt and personal attention.

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ITALIAN BEES AND QUEENS

Gentle 3-Banded stock, excellent honey producers, and we guarantee you—Young Queens—Prompt Service—Safe Arrival and No Disease.

2 lbs. bees with queen	\$2.45
3 lbs. bees with queen	3.15
4 lbs. bees with queen	3.85
2-frame nucleus with queen	3.15

10 to 50 pkgs. 15% Discount.
50 or more pkgs. 18% Discount

MAYEUX BEE FARM
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Fancy Golden Italian Queens

Untested 75c; Tested \$1.50; Breeders \$3.00 to \$5.00 each. These queens build colonies that it is a pleasure to work with. Good honey producers.

Guilford Apiaries, Guilford College, N. C.

MOTT'S Northern Bred Italians

May 1, \$1.00, 2 or more, 80c each.
June 1, \$1.00, 2 or more, 75c each.
Fair to good breeders, \$2.00, \$3.00, \$5.00. Virgins, 40c. Free list and literature.

E. E. MOTT, Glenwood, Michigan

BUY JOY QUEENS

Leather colored

Stock gentle and good honey gatherers. 75c each. After June 1st 50c.

JOY APIARIES, BELLEVILLE, ILL.

STATEMENT OF OWNERSHIP

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of American Bee Journal, published monthly at Hamilton, Illinois, for April 1, 1938.

County of Hancock, } ss.
STATE OF ILLINOIS, }

Before me, a notary public in and for the state and county aforesaid, personally appeared M. G. Dadant, who, having been duly sworn according to law, deposes and says that he is the business manager of the American Bee Journal, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, rendered by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse side of this form, to-wit:

1. That the names and addresses of the publishers, editors and circulation manager are:

Publishers: American Bee Journal, Hamilton, Ill.

Editors: G. H. Cale, Hamilton, Ill., Frank C. Pellett, Hamilton, Ill., M. G. Dadant, Hamilton, Ill.

Circulation Manager: James C. Dadant, Hamilton, Ill.

2. That owners are:
American Bee Journal, Hamilton, Ill., owned by

H. C. Dadant, Hamilton, Ill.

V. M. Dadant, Hamilton, Ill.

C. S. Dadant, Hamilton, Ill.

L. C. Dadant, Hamilton, Ill.

M. G. Dadant, Hamilton, Ill.

J. C. Dadant, Hamilton, Ill.

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R. H. Dadant, Hamilton, Ill.

Louisa G. Saugier, Hamilton, Ill.

Joseph Saugier, Hamilton, Ill.

That the known bondholders, mortgages and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages or other securities are: None.

(Signed) M. G. DADANT,
Business Manager American Bee Journal.
Sworn to and subscribed before me this twenty-first day of March, 1938.

MINNIE KING, Notary Public.
My commission expires Nov. 18, 1941.

York's Package Bees and Queens

Quality Bred Italians, and also, a Limited Supply Caucasians

Orders this month will be mainly rush orders and can be handled satisfactorily only with a good source of supply. If you are late we will appreciate serving you with bees and queens from our own yards, 5,500 colonies to ship from. Bees are our sole business, we have no side lines and our prices are lower, quality considered. Our experience covers both ends of the line as we use large quantities of package bees ourselves yearly in our Northern yards for honey production which enables us to better understand your needs and you can be assured that we can please you in every regard. Only competent experienced help are used to insure uniform full weight packages, service and safe shipping.

Order direct from this advertisement and save time. Safe arrival and satisfaction guaranteed.

York Bee Company

Jesup, Georgia, U. S. A.
[The Universal Apiaries]

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Tested queens.....	1.50 each, any number
2-Lb. packages bees with queens.....	2.45 each, any number
3-Lb. packages bees with queens.....	3.15 each, any number
4-Lb. packages bees with queens.....	3.85 each, any number
5-Lb. packages with queens.....	4.55 each, any number
Packages without queens, deduct price of queens.	
15% Discount from above prices to recognized dealers.	



SHIPMENTS ON TIME

All orders being filled as booked, have large supply of bees.

Satisfaction guaranteed. No deposit required.

Prices	Retail	Dealers
2-lb. Packages with Queen	\$2.45	\$2.08
3-lb. Packages with Queen	\$3.15	\$2.68
Untested Queen	\$.75	\$.64

MERRILL BEE COMPANY

BUCATUNNA, MISS.

MISSISSIPPI'S OLDEST SHIPPERS

PLEASE RUSH MY ORDER!

I am in a position to rush out orders for stock items the same day as the order is received. My business is very good this year but I still have several carloads of bee supplies packed and ready to go and I am operating my factory to capacity and do not expect to run behind.

Paducah is a large railroad center offering fast service and low freight rates. Thirty-six cars are routed out of Paducah daily by one railroad alone and there are three other railroad lines carrying many additional cars. Freight shipments going to Illinois, Wisconsin, Michigan, Missouri and Iowa in most cases should be delivered in three days; to Ohio, Central New York, Pennsylvania and West Virginia in about four days and within a week to the more outlying sections of our territory, and all at very low freight rates.

There is no reason to pay excessive prices, even this late in the season, when you can buy direct from my factory at my low factory prices, securing quality supplies, quick delivery and low freight rates.

The WALTER T. KELLEY CO.

Paducah, Ky.

Manufacturers of Bee Supplies

The Postscript

Gossip About the Office in the Making of the Magazine

New York beekeepers should profit materially from the campaign for better pastures which is carried on by Cornell University. A mixture of grasses is recommended which includes the Kent wild white clover, a splendid honey plant. To this effort, Prof. D. B. Johnstone-Wallace is attracting wide notice far beyond the confines of New York State. While his work is directed primarily to the service of the livestock growers, the indirect benefit to the beemen promises to be far reaching.

—ABJ—

Beekeepers from the Mississippi Valley eastward, where conditions are suitable for such grasses as succeed in New York, will do well to write to Prof. Johnstone-Wallace at Ithaca, New York, and ask for information to place in the hands of farmers who may be interested in pasture improvement. Details of fertilization, pasture management, and mixture of grasses are presented in mimeograph form.

—ABJ—

An article by Dr. Irving S. Cutter, in the New York Daily News of March 21, is of interest to beekeepers. He follows the lead of Dr. Beck in reporting favorably on bee stings for the relief of arthritis. Of one hundred cases so treated he reports seventeen as entirely cured, eighteen as practically well and thirty-eight as moderately helped.

—ABJ—

It is interesting to note that bee stings do not provide any sure cure since one-fourth of the patients failed to benefit. It would seem, however, that the results were sufficiently favorable to offer a good deal of encouragement to patients suffering from that malady.

A very successful physician of the writer's acquaintance has shown a great deal of interest in the bee sting cure and expresses confidence in the remedy.

—ABJ—

An Iowa friend writes some interesting comment on the series of "Private Lives of the Pioneers" now running in the Sunday magazine section of the Des Moines Register. The series is by my son, Kent, who became known to American Bee Journal readers through a similar series, "Lives of Famous Beekeepers."

—ABJ—

Concerning coriander, Edgar Abernethy, of Stanley, North Carolina, comments as follows: "We grow it for the seed, which we use in seasoning sausage. As we never have more than a dozen or so plants, I can give no information in regard to its value for honey; I have never even noticed whether bees frequent it. I can bear testimony to the flavor of the sausage, though." We are still looking without success for a commercial grower of coriander seed.

—ABJ—

Iowa beekeepers will be pleased with the prospect that a honey plant garden may be established under direction of Dr. J. N. Martin at the Iowa Agricultural Experiment Station at Ames. More than fifty years ago there was such a garden at the Michigan College of Agriculture which attracted world wide interest among the beekeepers. Should enough interest develop to justify the effort it is probable that such a garden may become a permanent service on the part of the institution for the benefit of the honey producers of Iowa.

—ABJ—

The results of the comparison of the races of bees by Dr. O. W. Park is now available. Those wishing copies should write Dr. Park at Ames, Iowa, and ask for a copy of Journal Paper 404 of the Iowa Agricultural Experiment Station.

My sincere thanks to the Long Island Society of Apiculture for honorary membership. It is a very interesting organization to which one may feel happy to belong.

—ABJ—

From Wyoming comes the question as to whether sugar beets yield honey for the bees when the plants are permitted to mature seed. Who is familiar with sugar beets for seed?

—ABJ—

A very pleasing letter comes from Konrad Halle, of Georgsheil, Kreis Aurich, Germany, in which is enclosed a packet of seed of one of the catmints, (*Nepeta nervosa*), for trial in my garden. Beekeepers of all the world find much in common and letters from readers in distant lands are among the finest pleasures of an editor.

—ABJ—

The first report of honey from garden peas that I have ever found comes from Ernest A. Fortin, a bee inspector of Rougemont, Quebec. He reports the honey as crystal white and the most transparent he ever saw but having a strong taste of the peas. He says: "In this locality many extensive fields of peas are grown for the canneries and no doubt much pea honey is gathered but we seldom notice it for it is generally mixed with other nectars."

—ABJ—

It is never safe to decide that a plant does not yield nectar because we fail to find evidence of the fact in a particular locality. I never remember seeing a honeybee on the flowers of the garden pea, but here is evidence that some honey is gathered from that source in Quebec. Such reports are common for a great variety of plants and we have come to expect our best honey plants to be failures under other conditions. Likewise we often fail to find the bees getting honey in this locality from plants recognized as important elsewhere.

—ABJ—

Here at Pellett Gardens an electric pump has been installed to irrigate a small area in the vicinity of a 200 foot well. It is a bit expensive to lift water from that depth, but it is hoped that results will justify the cost to water a strawberry bed.

—ABJ—

The Zofka red clover came through the winter in good condition and at this writing looks very promising. It has been a mild winter and the real test of winter hardiness is still to come. However, there was one short period when the temperature dropped to fifteen degrees below zero which should show some effect if the plant is particularly tender to cold.

Great interest has been manifested in this red clover with short flower tubes which enable the honeybees to get the nectar. Once the farm crops specialists are convinced that it is suited to our mid-western conditions a very real problem will be presented in finding a supply of seed to meet the demand.

The object of the American Bee Journal in importing seed for trial was to find a new source of bee pasture. If it lives up to its present promise we will do everything we can to secure wide distribution as quickly as possible.

—ABJ—

Mrs. C. W. Kruse, of Lemmon, South Dakota, reports that they planted 90 acres of Cossack alfalfa at the same time they planted the yellow flowered Semipalatinsk. The Cossack is all dead now. Although it stood up well against the drought it has not proved as hardy as the Semipalatinsk.

FRANK C. PELLETT, Atlantic, Iowa.